Report of the Federal Task Force on

High Risk Pregnancies and *Prenatal Record Systems*

Canada

REPORT OF THE

FEDERAL TASK FORCE ON HIGH RISK PREGNANCIES

AND PRENATAL RECORD SYSTEMS

Également disponible en français sous le titre "Rapport du groupe fédéral de travail sur les grossesses à risque élevé et les systèmes d'enregistrement des données prénatales"

SUMMARY OF RECOMMENDATIONS OF THE

FEDERAL TASK FORCE ON HIGH RISK PREGNANCY

AND PRENATAL RECORD SYSTEMS

Foreword

This report is not a statement of federal government policy but represents an information base for further considered courses of action and potential policy development. It is hoped that this report will prove to be a useful guide for those professionals and para-professionals involved in providing pre-natal and peri-natal care to expectant mothers.

SUMMARY OF RECOMMENDATIONS OF THE FEDERAL TASK FORCE ON HIGH RISK PREGNANCY AND PRENATAL RECORD SYSTEMS

The following are the recommendations of the Federal Task Force:

RECOMMENDATIONS (SECTION II)

1. Each province in Canada should be encouraged to develop a prenatal record form for use by physicians undertaking obstetrical care.

2. The prenatal forms devised in each province should as far as possible be uniform in design and concept and should include a means of risk evaluation of the expectant mother using accepted risk predictors detailed in the body of this report.

3. Provision should be made for inclusion of the original prenatal record form in the mother's hospital record, a copy to be included in the neonatal hospital record and a copy to be retained in the physician's office record.

4. Provincial efforts to develop regionalized programs of perinatal care which have resulted in triage of high risk pregnancies according to their care requirements are laudable and should be encouraged throughout Canada.

5. Although the primary intent of the prenatal record form is to facilitate care of the pregnant woman by her physician, consideration should be given during the course of form design to inclusion of certain basic items of information which, if uniformly entered and collected, could be used for data retrieval and analysis.

RECOMMENDATIONS (SECTION III)

6. Properly designed studies into the validity of risk scoring systems should be encouraged and supported.

7. Risk assessment of the pregnant woman is of proven value and should be universally applied.

8. Properly conducted and controlled studies must be instituted to demonstrate the effect of length of work and type of occupation on pregnancy.

9. The cost implications of alternative work proposals to pregnant women and society must be evaluated.

10. Studies should be undertaken on the effect of toxic substances in the workplace, and their effects on the pregnant working woman and her fetus.

11. Prospective studies should be conducted to clarify the relationship of early pregnancy bleeding to pregnancy outcome, with special emphasis on congenital anomalies.

12. Well-controlled, prospective studies of the effect of nutritional supplementation and diet on the outcome of pregnancy are necessary.

13. A strong research effort should be made to elucidate the pathophysiology of pregnancy induced hypertension and its relationship to poor maternal outcome.

14. Adequately controlled prospective studies into post-term pregnancies must be carried out, with particular emphasis on fetal and maternal morbidity.

15. The Task Force recommends the continued support of prenatal care programs, with special emphasis on the detection of pregnancies at risk.

16. Continuing emphasis should be given to the humanization of the birthing process to maintain and improve psychological satisfaction of this family experience. However, the fundamental guiding principle of a responsible patient care provider must always be to maintain and protect the physical well-being of the mother and her infant.

17. Information is urgently required to assess the potential for long-term effects of ultrasound on the fetus.

18. Until such studies of long-term effects of ultrasound are completed, the use of routine ultrasound without specific indications in pregnancy should be discouraged.

19. Educational standards for ultrasonographers are required.

20. Properly designed prospective studies of antepartum and intrapartum fetal heart monitoring should be implemented to establish the validity of specific applications.

21. Properly designed trials should be carried out to delineate side effects on mother and fetus and attempt made to validate whether there is improvement in outcome by use of tocolytic agents.

22. Maternal-fetal transport should be undertaken whenever possible in preference to transport of the distressed neonate.

23. Programs of maternal transport within the framework of a regionalized system should be implemented uniformly throughout Canada in preference to neonatal transport.

24. Because of potential hazardous long-term effects, glucocorticoids to prevent respiratory distress in the neonate should only be administered when it is felt that their definite short-term benefits are essential.

25. Whereas the role of the nurse in reproductive care is recognized in many countries, it has not yet been agreed upon in Canada, and therefore the Committee proposes the establishment of a National Task Force to address this important issue. The "core" members of the Task Force should include clinical perinatal nurses plus obstetrical and pediatric perinatologists. Additional representatives should be appointed from appropriate medical and nursing professional bodies.

26. Neonatal morbidity should be precisely defined and its appropriateness to reflect the quality and effects of perinatal care delineated and evaluated.

RECOMMENDATION (SECTION IV)

27. The Task Force recommends that the foregoing definitions of uniform terminology for maternal and perinatal statistics be adopted for use throughout Canada. It is further recommended that these definitions be forwarded to the appropriate federal and provincial authorities for further discussion with a view to their implementation.

RECOMMENDATION (SECTION V)

28. An ad hoc committee of experts on prenatal and perinatal care be established and be charged with follow-up of the Report of the Canadian Commission for the International Year of the Child and of this Task Force report for the specific purpose of ensuring that Canadians attain optimal outcome of pregnancy as previously defined.

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I. GENERAL INTRODUCTION

A. BACKGROUND

There have been many significant advances in reproductive care in recent years. Application of new knowledge and techniques has resulted in progressive reduction in perinatal mortality rates in Canada to values which are now comparable with the best in the world. It is obvious however that mortality rates should not be the only criterion upon which the success of a nation's program for perinatal health care is judged: morbidity rates and client satisfaction are two other important criteria which must be taken into account if optimal outcomes are to be attained in what is a physiological and joyous event for the majority of the population.

This Federal Task Force on High Risk Pregnancies and Prenatal Record Systems was established in February 1981 by the Health Services Directorate of the Health Services and Promotion Branch. Its formation arose through a series of steps initiated by the Canadian Institute of Child Health (C.I.C.H.) in 1978 to attempt to improve the outcome of perinatal care in Canada. In that year studies were initiated, one result of which was formation of the Canadian Coalition for the Prevention of Handicaps Through Improved Prenatal and Perinatal Care. Other outcomes included preparation of a position paper and a book entitled "Priority of Priorities"[1] copies of which were sent to all Provincial ministers and their deputies and to the Federal Minister of Health and Welfare.

In 1979 the Report of the Canadian Commission for the International Year of the Child recommended that governments "adopt a policy making maternal and child health a priority for the next five years"[2].

In 1980, Monique Bégin, Minister of Health and Welfare, in a letter to the Chairman of the Board of the C.I.C.H., William Cochrane, M.D., F.R.C.P.(C), commending the Institute for its "role in stressing the need for improved perinatal care", suggested further discussions with her department to plan and develop a coordinated program.

These discussions prompted the formation of this Task Force in 1981. Its terms of reference, listed by M.M. Law, M.D., F.R.C.P.(C), Assistant Deputy Minister, Health Services and Promotion Branch, Health and Welfare, Canada, were as follows:

1. To discuss, develop and process a set of guidelines which will identify various maternal conditions which will aid health professionals in recognizing cases of high risk pregnancy.

2. To develop a prenatal record system which would have the potential for universal use and applicability.

B. PARTICIPANTS

The following were members of the Task Force:

Dr. Jack H. Walters, Chairman
Dr. Graham Chance
Dr. James Dunne
Dr. Martine Gagnon
Dr. Emily Hamilton
Dr. Karen Kaufman
Mrs. Joyce (MacDonald) Kaye
Dr. Bernard Leduc
Dr. Robert H. Lennox
Dr. T. MacLachlan
Dr. Thomas Martin
Dr. John Milligan
Dr. Ruth Milner
Dr. Ian Morrison
Dr. Leo Peddle
Mrs. Shirley Post
Dr. Donald Rae
Dr. D. Smith
Dr. H. Stewart

Consultants in Epidemiology and a clinical consultant group who provided valuable comments are listed in Appendix 2. This report was prepared by the members of the Committee who are practising health professionals and scientists with particular expertise and interest in perinatal care. The report is submitted to government but was not prepared by government. Valuable support from Dr. Lennox and his secretarial staff was provided to arrange the meetings, transcribe and translate the minutes and numerous task force documents, and in the preparation and printing of this final report. The document is intended for the use of practising health professionals who provide care for pregnant women and their infants. It is also planned to distribute it to Health Services planners at all levels of government, who require guidelines and standardized definitions for the development of improved systems of perinatal health care.

C. PREAMBLE

The concept of perinatal care has evolved from a time when there were no uniformly accepted definitions or specialized units, through to the development of an internationally accepted concept of high risk pregnancy and Perinatal Care units for high risk pregnancy patients and their infants, made available through regionalized programs.

The literature review and those citations in the bibliography in this report are limited to references concerning high risk pregnancies which have been published over the past 10 years. They are but a sample of the many publications in this important field, and include 368 references which have been reviewed by Dr. Ruth Milner and her group.

D. OBJECTIVES OF THE TASK FORCE

The specific objectives of the Task Force were projected into the above historical sequences. A number of the provinces have already developed systems whose stated objectives are to reduce perinatal mortality and morbidity. These provinces have developed record systems, interventions as well as personnel and facilities to accomplish these objectives. The Task Force studied the possibility of developing a set of uniform definitions for Canada, and the development of a set of "core markers" which could be considered for use by each province in modifying their existing prenatal record systems, if indicated or needed.

The conclusions and recommendations of the Task Force which follow are not intended to coerce or mandate the development of a single prenatal record form, method of management or system of health care of prenatal patients in any province. They are intended to establish standards for possible comparison of similar conditions, methods of management and outcomes in the perinatal field. Only through the cooperation of the members of the professional associations and the federal and provincial health care systems, will improvements evolve. As a group of concerned professionals, we urge that perinatal care be given the proper priority at all levels over the next years. We trust that this report will aid in such an evolution.

E. METHOD OF STUDY

The three main tasks of the Task Force for the study were allocated to three separate subcommittees which were asked to review the literature and prepare reports which could be studied and approved by the main Task Force.

The Subcommittee on Prenatal Records was chaired by Dr. I. Morrison. The report of this Committee is summarized in Section II and given in detail in Appendix 3.

The second Subcommittee under the chairmanship of Dr. B. Leduc and Dr. J. Milligan was given the more difficult task of defining high risk pregnancies. After their initial meeting they met with the whole committee, and the following motion was adopted in recognition of our concern over certain essential aspects of modern care.

"Recognizing the concern of the Health Care Professions and of the general public over the apparently high incidence of 'High Risk Pregnancies', it is moved that the validity of currently used predictors of unfavourable outcome of viable pregnancies and the basis upon which the outcomes are identified, be evaluated."

Dr. Ruth Milner agreed to serve on the Task Force to provide the expertise and supervision for these evaluations.

The Subcommittee on Definitions under the chairmanship of Dr. Leo Peddle, developed the section which is included in the report entitled "Uniform Maternal and Perinatal Terminology". This section has been forwarded to the recently-formed National Committee on Perinatal Terminology which has representatives from Statistics Canada as well as this Task Force to be used as the basis for a set of uniform definitions which could be acceptable to provincial registrars and federal authorities.

II. PRENATAL RECORDS

A. CONTENT

In the medical or social history of a pregnant mother and findings on physical and laboratory examination, there may be "markers" or "factors" which indicate potential problems for the mother or child. These "markers" may be identified at an early stage of pregnancy or may develop at any time throughout the pregnancy, up to the time of onset of labour and delivery.

The factors sampled, and assessed by family physicians, obstetricians and nurses in the management of the pregnant mother undergoing prenatal care, may be recorded on specifically designed forms called prenatal record forms. These forms are used by the health care team for documenting ongoing care of pregnant mothers. They are usually designed so that they are easily identified as separate and specific records for use in offices, clinics and hospital medical record departments.

The history of the development of the prenatal record and the increasing sophistication of its content over the past half century, mirrors the development of the specialty of perinatology. There was a reduction of international maternal and perinatal mortality rates as techniques to detect and manage major obstetrical and neonatal complications became known. To a limited extent this reduction was accompanied by a lowering of morbidity in these same risk situations. However, as outcomes have improved perinatal mortality has approached its "irreducible minimum" and reduced morbidity of perinatal origin must nowadays be regarded as the prime focus of effective care.

B. UNIFORMITY

To improve the identification of pregnant women "at risk" and to provide a standard guideline for the health care team

documenting the numerous factors evaluated throughout the prenatal period for all pregnant mothers, groups of health professionals developed comprehensive prenatal records. Initially these records were utilized only for ambulatory patients in offices and clinics, but gradually hospitals, cities, regions and eventually provinces developed uniform prenatal records. During their evolution, prenatal records have undergone many user trials. In general the following changes can be identified:

1. The format of the record became more standardized.

2. Certain items of information were cited in specific areas of the record (e.g. obstetrical history or last menstrual period).

3. Sections of the record were developed for notations of follow-up or management (e.g. weight, blood pressure, fetal health).

4. The items or factors recognized to be required for prenatal management became accepted (e.g. blood group, Rhesus type and antibodies, Rubella titre).

5. New research findings used in this sorting or identification of risk became incorporated (e.g. symphysis-fundus height measurements, ultrasound).

Specific areas for recording of cervical cytology and for listing of pertinent personal, medical, family or social factors became established as integral aspects of the prenatal record. Concurrent with development of prenatal records, the principle that certain pregnancies benefit from special care has become more widely established and accepted.

C. INCLUSION IN HOSPITAL RECORDS

With improvements in prenatal data acquisition and recognition of the significance of prenatal events for postnatal outcomes, there was a recognition of the importance of the prenatal record in the management of the mother and her infant, to act as a vehicle to transmit information to the labour, delivery and postnatal wards of the hospital in which she was to give birth.

At first only the blood group, Rhesus type and serology report were seen to be required. Eventually blood pressure, total weight gain, hemoglobin, investigations and treatments carried out during the prenatal period and other information was realized to be needed by the perinatal team. As a result, the record is now usually in multicopy format. In most instances, one copy is sent to the hospital and the original is kept in the doctor's office or clinic. In some provinces an additional copy is sent to the neonatal chart. In many hospitals in Canada, the by laws of the hospital oblige all practitioners to forward to the hospital a copy of the prenatal record for each patient who is to be admitted in labour to that hospital. Most provinces now have standardized prenatal records for this purpose.

Recommendation #1. Each province in Canada should be encouraged to develop a prenatal record form for use by physicians undertaking obstetrical care.

Recommendation #2. The prenatal forms devised in each province should as far as possible be uniform in design and concept and should include a means of risk evaluation of the expectant mother, using accepted risk predictors detailed in the body of this report.

Recommendation #3. Provision should be made for inclusion of the original prenatal record form in the mother's hospital record, a copy to be included in the neonatal hospital record and a copy to be retained in the physician's office record.

A more detailed discussion of the content, design and purpose of the prenatal record is found in Appendix 3.

D. PERINATAL CARE PROGRAMS

The dramatic reduction of maternal and perinatal deaths and the concomitant reduction in morbidity for both mothers and their newborns over the past 15 years in Canada is not only due to improved housing, food or transportation. It is also due to the recognition that a proportion of all pregnant women, probably less than 25 per cent, have increased risk perhaps due to some unrecognized problem(s), that require(s) these women to be managed differently from the remainder. Over the past 15 years, these "risk" patients have been identified, more appropriately managed, and their perinatal death and morbidity rates reduced as a result of application of various interventions by health care teams.

A major component of this improvement has been accomplished through education of mothers-to-be to the recognition that their pregnancy is indeed "at risk" and that there are possibilities for improving the outcome for many of them.

The progressive improvement in perinatal statistics in all regions of Canada attests to the impact of these programs.

The system of health care delivery has been modified over the same period of time so as to ensure availability of special care for those mothers with particular needs. Facilities have been developed on a regional basis to provide teams of personnel specifically trained to care for the identified high risk patient, her fetus and newborn. These teams have been based in specially designed and equipped perinatal units which are the designated centres for regional educational programs and for referral of women with complicated pregnancies. In conjunction with the other institutions and professionals in the region, the facilities serve as resource centres to provide the expertise necessary to bring about improved care. This phenomenon of "regionalization of medical care" is well established for other special medical problems, including

cancer, trauma, renal dialysis and genetics. Such an approach has been shown to ensure equitable availability of costly programs and to improve outcome for these special medical conditions.

Recommendation #4. Provincial efforts to develop regionalized programs of perinatal care which have resulted in triage of high risk pregnancies according to their care requirements are laudable and should be encouraged throughout Canada.

For the small number of instances in which either mother or baby dies or in which there is a continuing disability of the mother or child, anguish and suffering may be prolonged. Moreover, the health care cost for continuing care of damaged infants and children is a financial burden for the family and for society for many years. Further reduction of perinatal mortality and morbidity among the offspring of those pregnant mothers who are identified at risk, will thus be to the benefit of society. Achievement of this aim will require better understanding of causal factors, many of which originate prenatally. Record linkage of information concerning the social, economic and educational background of the woman and her partner is important in long-term assessment of risk factors.

Recommendation #5. Although the primary intent of the prenatal record form is to facilitate care of the pregnant woman by her physician, consideration should be given during the course of form design to inclusion of certain basic items of information which, if uniformly entered and collected, could be used for data retrieval and analysis.

E. DEFINITIONS OF RISK PREGNANCY

A consensus was reached by the Task Force that the definition of high risk pregnancy was dependent upon the sum total of the markers which individually are associated with increased risk during a pregnancy. There were three groups of markers identified by the Task Force as follows:

a) Risk Markers

These are factors which have been accepted and are currently being used in clinical practice as indicators of some degree of increased risk in any pregnancy. An example is maternal diabetes.

b) Outcome Markers

Unfavourable outcome events which can be identified and are valid as the current markers for at least this pregnancy. Examples would be maternal sepsis or intraventricular hemorrhage.

c) Intervention Markers

These are techniques or factors which have a positive or negative influence on the management and/or outcome of the pregnancy. An example would be the measurement of lecithin-sphingomyelin ratio in the amniotic fluid as a predictor of pulmonary maturity.

Based on a consensus of clinical experience, the following factors thought to influence the pregnant patient, the fetus or the neonate, were listed by the Committee and placed in the following categories, according to priority, for methodological evaluation of their literature:

1. Those factors which were so well recognized or "obvious" that no further research or statistical assessment was felt necessary to validate them as markers (low priority for study).

2. Those factors with high priority to establish validity as markers of high risk pregnancy.

The listing by category which included Risk, Outcome and Intervention markers is as follows:

a) Risk Markers

1 (Obvious)

1) low birth weight infant
2) smoking
3) previous fetal or neonatal death
4) drugs (non-medical)
5) medical disorders
6) antibodies (Rh, Rubella, etc.)
7) alcohol ingestion
8) gestational diabetes
9) no prenatal care
10) multiple pregnancy
11) premature rupture of membranes
12) prematurity
13) abnormal position of fetus
14) abnormal presentation of fetus
15) anesthetic coverage and resuscitation
16) scalp sampling of fetal blood

2 (Validity to be Established)

1) time of first attendance for prenatal care
2) urinary tract infection
3) therapeutic abortion history
4) pre-pregnancy weight
5) pre-pregnancy height
6) socioeconomic status
7) nutrition
8) alpha-feto protein
9) age - under 20 years
   - over 35 years
10) occupation - mother (not specifically father)
11) validity of standard form used
12) validity of risk screening form used
13) bleeding
14) hypertension (two readings 20 minutes apart)
15) pregnancy longer than 42 weeks
16) labelling of patient high risk
17) screening with non-stress test
18) prenatal classes attendance
19) place of birth (home vs. hospital)
20) size of hospital (either in or out of functioning regional hospital system)

b) Outcome Markers

1 (Obvious)

1) respiratory distress syndrome
2) intraventricular hemorrhage
3) sepsis
4) genetic and developmental abnormalities
5) broncho-pulmonary dysplasia

2 (Validity to be Established)

1) anemia
2) bilirubin
3) fractures
4) small for gestational age
5) seizures
6) cerebral palsy
7) mental retardation
8) neurological abnormalities at discharge
9) low Apgar ($<$ 7 at 5 minutes)
10) metabolic acidosis (cord pH $<$ 7.2)

c) Intervention Markers

1 (Obvious)

1) skilled neonatal transport
2) maternal-fetal transport

2 (Validity to be Established)

1) who does the delivery (G.P., Obs., midwife)
2) maternal-fetal transport versus neonatal transport
3) bed rest
4) operative delivery (Cesarean, forceps)
5) induction
6) glucocorticoids
7) tocolytic agents

Funding was made available to Dr. Milner and her staff for a research project to review the above list of markers which were discussed and categorized by the members of the Task Force. The objective was to make a critical assessment of the validity of the scientific methodology used in evaluation in published studies relating to these markers and to explore areas where their use was less than optimal.

The section on methodology outlines the stringent review methods used by Dr. Milner and her group. The section entitled Intervention and Outcome Variables outlines the results of these extensive reviews. The comments and recommendations of the Task Force for areas of further study and development are based on these studies.

III. EVALUATION OF PREDICTORS, INTERVENTIONS AND OUTCOME VARIABLES

INTRODUCTION

Pregnancy is a natural process, however complications may develop and thus incur risks to the mother or child. The natural reproductive process ensures survival of the species, but on an individual basis does not guarantee a problem-free pregnancy nor a healthy newborn. The intent of modern perinatal care is to optimize the birth of an infant with full potential while maintaining minimal risk to the mother.

In order to be effective in preventing problems, risk detection must be prospective. The establishment of predictive factors has been dependent largely upon retrospective evaluation. Some complications in pregnancy may be immediate and unpredictable, for example the occurrence of premature rupture of the membranes at 27 weeks, or cord prolapse in an otherwise apparently healthy pregnancy. In contrast, past events, such as the history of premature rupture of membranes at 27 weeks in a previous pregnancy, indicate a potential for risk in a current pregnancy, yet in the majority of patients a healthy outcome will ensue.

This Task Force has examined factors believed to be associated with increased risk of adverse outcome which may be used to alert the physician to actual or potential problems. Some, which were considered non-controversial and generally accepted, are only listed (Section B). Other factors claimed in the literature to be predictive and/or to be appropriate interventions, but which are controversial, have been extensively scrutinized with regard to their proven epidemiologic validity as predictors of problems or interventions considered beneficial to patient management (Sections C and D).

A. EPIDEMIOLOGIC METHODOLOGY

The criteria for assessment of the quality of the evidence were based on those used by the Canadian Task Force on the Periodic Health Examination[3].

Three aspects were reviewed. They were:

- the current burden of suffering;
- the validity and acceptability of the manoeuvre used to identify the risk of condition;
- the effectiveness of the resulting intervention.

Only the latter two aspects were reviewed in detail.

To obtain the appropriate literature, a Medline Search for the previous two years was run for each risk marker or intervention, and recent articles were solicited from colleagues. From articles cited, other references were culled from the bibliographies attached to each and a library was thus assembled around every marker. A positive decision was made not to review literature prior to 1975 because it was felt that recent evidence would be more valuable. Only in rare cases was the search taken further; either because the best articles were published earlier and still reflected current evidence, or because there was a dearth of recent articles.

To assess the quality of evidence contained in the articles, the criteria for judging diagnostic tests or evaluating the effectiveness of interventions were taken from the series of critical appraisal articles which appeared in the Canadian Medical Association Journal in 1981 under the title of Clinical Epidemiology Rounds[4]. An attempt was made to cover the three aspects already mentioned as fully as possible but lack of time, data and appropriate references precluded a complete review, especially in regard to the current burden of suffering.

An example of the application of the literature appraisal methods used is given in the review of the literature on Intrapartum Fetal Monitoring in Appendix 4.

B. ACCEPTED RISK PREDICTORS

1. Previous Obstetrical Performance

Past obstetrical history has a strong predictive value for the current pregnancy. This contribution is unfortunately not available for nulliparas and even in multiparas is not absolutely predictive.

Low birth weight infants ($<$2.5 kg)
Perinatal death
Habitual abortions (3 or more consecutive)
Birth injury
Congenital anomalies
Genetic disease
Grand multiparity
Previous Cesarean section

2. Maternal Medical Factors

Recognition of these factors is important because appropriate intervention will minimize complications.

Medical disorders in pregnancy (e.g. diabetes, hypertension, etc.)
Isoimmunization
Family history of genetic disease
Maternal age ($\leq$16 years, or $\geq$35 years)
Rubella susceptibility
Uterine surgery or abnormality

3. Socioeconomic Factors

Extremes of unfavourable socioeconomic and cultural factors produce detrimental effects on the pregnancy.

Poverty and starvation
No prenatal care
Alcoholism
Heavy smoking
Drug abuse

4. Fetal and Maternal Factors Arising During Pregnancy

These factors affirm the importance of early and ongoing prenatal care for the detection, assessment and management of actual or potential problems in pregnancy.

Multiple pregnancy
Intrauterine growth retardation
Concurrent infection (e.g. Rubella, herpes, toxoplasmosis, syphilis)
Fetal disease (e.g. hydrops, genetic diseases, congenital anomalies)
Polyhydramnios
Oligohydramnios
Maternal disease (e.g. pregnancy induced hypertension (PIH), gestational diabetes, anemia)
Antepartum bleeding
Isoimmunization

5. Labour and Delivery Factors

Previously identified risk factors may well persist at the time of onset of labour; however, additional and non-predicted complications may arise during labour and delivery. These may be associated with major problems and can require urgent and immediate attention.

Preterm labour
Premature rupture of membranes
Prolonged labour
Malpresentation and/or Malposition
Prolapsed cord
Traumatic birth
Passage of Meconium
Intrapartum asphyxia
Intrapartum bleeding
Neonatal asphyxia
Congenital anomalies interfering with neonatal adaptation (e.g. diaphragmatic hernia)

C. CONTROVERSIAL PREDICTORS

1. Risk Scoring is the numerical weighting of individual and combined risk factors which are added up to a cumulative score.

   Risk Assessment is the clinical evaluation of the significance of individual risk factors.

   Risk scoring has been reported to correlate with perinatal outcome. However, when subjected to strict epidemiological analysis, the validity of these correlations is questionable.

   Properly designed studies have not yet been published which tested the hypothesis that risk scoring by itself modified perinatal outcome. However the proper application of clinical assessment of risk factors (Section B, 1-5) has been associated with improved perinatal outcome for individuals.

   The educational value, especially to the health care provider, in the use of risk scoring and/or risk assessment, when applied to a population of pregnant women, is recognized [5-33].

COMMENTS ON RECOMMENDATIONS

It is apparent that although there are many factors which may potentially increase the risk of adverse outcome of pregnancy, there is urgent need for further research to determine whether these factors represent real or imagined risk, or whether certain interventions have real or imagined benefit. Evaluation of the significance of some factors may be precluded because studies designed to test them may be too complex and impractical or may contain major ethical obstacles. Likewise, certain accepted intervention procedures of imprecisely defined value also may be difficult to withdraw.

Recommendation #6. Properly designed studies into the validity of risk scoring systems should be encouraged and supported.

Recommendation #7. Risk assessment of the pregnant woman is of proven value and should be universally applied.

2. Length of Work and Occupation During Pregnancy

Currently there are no adequate data nor published reports to answer the questions of the effect of length of work or the type of occupation on pregnancy and its outcome.

This area has become of major importance as the number of women of childbearing age entering the work force has increased consistently over the past number of years. Moreover, legislation, union contracts, and job benefits for working pregnant women make the answers to these questions of a great practical importance. The main conclusion of the American College of Obstetricians and Gynecologists in their report for the U.S. Department of Health and Education states that "The normal woman with an uncomplicated pregnancy and a normal fetus in a job that presents no greater potential hazards than those encountered in normal daily life in the community, may continue to work without interruption until the onset of labour and may resume working several weeks after an uncomplicated delivery". However, while accepting

the concept of work throughout pregnancy, this conclusion reveals the lack of factual data necessary to advise pregnant women.

The economic implications, both of working restrictions and of cost of benefits need to be delineated with respect to the individual and society. The effects of work within the home on pregnancy and its outcome, the relationship of stress, socio-economic factors, etc. to employment and pregnancy must be clarified. The relationship of non-employment related activities such as crafts, athletics, etc. have not been evaluated and need to be outlined.

Recent trends in Canada concerning the employment of pregnant women, and the financial and social implications of such changes are a major issue in our society today [34-41].

Recommendation # 8. Properly conducted and controlled studies must be instituted to demonstrate the effect of length of work and type of occupation on pregnancy.

Recommendation # 9. The cost implications of alternative work proposals to pregnant women and society must be evaluated.

3. Toxic Exposures and Congenital Abnormalities

Precise identification of potential responsible agents, exposure levels, and susceptible periods during pregnancy are lacking in most studies. Spontaneous abortion is reported as increased in operating room personnel, in steel smelting workers, and in those working in styrene or rayon production. Congenital abnormalities are reported in higher prevalence among children of gardeners, switchboard operators, reinforced plastic production, steel smelting workers, pharmaceutical laboratory workers, operating room workers and workers using organic solvents. Intensive studies in these women and in those working in other fields such as those working with Visual Display Terminals are needed to clarify exposure risks in pregnancy.

Recommendation #10. Studies should be undertaken on the effect of toxic substances in the workplace, and their effects on the pregnant working woman and her fetus.

4. Early Antepartum Bleeding and Pregnancy Outcome

Early antepartum bleeding prior to 20 weeks does warn of some increased risk of late pregnancy complications, namely, premature birth, congenital anomalies, and increased perinatal mortality. The Ontario Perinatal Mortality Study [64] showed a premature birth rate of 5.9% in patients with no early bleeding and 14.5% in patients with early bleeding. The perinatal mortality rate was also increased from 22.9 to 65.2 in those without bleeding compared to those with bleeding. The only studies showing an increased congenital anomaly rate were retrospective and therefore included a strong recall bias[42-53].

Recommendation #11. Prospective studies should be conducted to clarify the relationship of early pregnancy bleeding to pregnancy outcome, with special emphasis on congenital anomalies.

5. Nutritional Supplement

Although much is written of the importance of good nutrition in pregnancy and there is some correlation between low pre-pregnancy weight and low weight gain with low birth weight babies, nutritional supplementation alone has not been shown to have a direct effect on pregnancy outcome. Many study design problems exist in published articles, such as failure to ascertain whether the supplement was actually eaten, whether the intended supplement was actually taken in addition to usual diet or if it simply substituted for the normal diet. Such study defects generally preclude adequate evaluation of the effects of supplemental nutrition[54-72].

Recommendation #12. Well controlled, prospective studies of the effect of nutritional supplementation and diet on the outcome of pregnancy are necessary.

6. Blood Pressure Elevation: Maternal Significance

Pregnancy may unmask latent hypertension but information on the early and late consequences to the mother is scant. Severe pregnancy induced hypertension remains one of the leading causes of maternal mortality[73-93].

Recommendation #13. A strong research effort should be made to elucidate the patho-physiology of pregnancy induced hypertension and its relationship to poor maternal outcome.

7. Post-Term Pregnancy

Because perinatal mortality is relatively low after post-term pregnancy, the use of this marker for statistical analysis is limited. However, descriptive studies report increased incidence of induction of labour, meconium stained amniotic fluid, and Cesarean section, and indicate the need for further investigation with an emphasis on morbidity[94-102].

Recommendation #14. Adequately controlled prospective studies into post-term pregnancies must be carried out with particular emphasis on fetal and maternal morbidity.

D. CONTROVERSIAL INTERVENTIONS

1. Prenatal Care: Providers and Programs

Very few studies have adequately examined the relationship between the training and qualifications of prenatal care providers and pregnancy outcome. The difficulties inherent in such studies almost preclude their satisfactory completion (e.g. the frequency of prenatal examination and the timing of the first visit are closely related to socio-economic factors which themselves affect pregnancy outcome).

It was interesting to note that in one study in family practice in which prenatal care was randomly allocated to either physician or nurse practitioner, no difference was shown in outcome.

Studies in rural communities have demonstrated significant improvement in outcome when prenatal care programs conducted by nurse-midwife were introduced where no programs previously existed. From the evidence reviewed, it is clear that the difficulties inherent in conducting studies of the effectiveness of prenatal care programs or their provision by different personnel, have almost precluded their satisfactory completion[103-115].

Recommendation #15. The Task Force recommends the continued support of prenatal care programs with special emphasis on the detection of pregnancies at risk.

2. Childbirth Education Programs

Recent emphasis on childbirth education programs and their possible impact on perinatal outcome has been a source of major controversy. For this reason, it was felt important to validate the suggested beneficial effects of these programs. Unfortunately, their content and evaluation criteria differ amongst all studies, making validity assessment impossible.

A second question has related to the efficacy of these particular interventions, and again the reports in the literature are fraught with difficulties because of methodological problems. However the use of analgesia, anesthesia and forceps is generally decreased in those women who have participated in such programs.

There is no difference in length of labour, frequency of complications, birth weight, or Apgar score but there does tend to be a greater psychological satisfaction with the birth experience.

Unfortunately, none of the studies examined cost benefits or effectiveness. No long-range benefits have been demonstrated. It does not appear that possible disadvantages such as unrealistic expectations or aims have actually been examined. It is difficult to assess effectiveness of the intervention as the goals addressed by the various approaches are diverse[116-137].

Recommendation #16. Continuing emphasis be given to the humanization of the birthing process to maintain and improve psychological satisfaction of this family experience. However, the fundamental guiding principle of a responsible patient care provider must always be to maintain and protect the physical well-being of the mother and her infant.

3. Ultrasound

Ultrasound examinations are helpful in the detection of anomalies, assessment of gestational age, multiple gestation, placental localization, and fetal heart rate and movement. The benefits of ultrasound scanning vary with the particular function expected from it. As far as fetal growth is concerned, there seems to be very good evidence that ultrasound is a useful adjunct to clinical identification and assessment of intrauterine growth retardation.

Ultrasound is also useful to determine fetal age when it is used rationally and early in pregnancy. While there have been few prospective controlled studies, it appears clear to the Committee that ultrasound is necessary prior to amniocentesis[138-201].

Recommendation #17. Information is urgently required to assess the potential for long-term effects of ultrasound on the fetus.

Recommendation #18. Until such studies of long-term effects of ultrasound are completed, the use of routine ultrasound without specific indications in pregnancy should be discouraged.

Recommendation #19. Educational standards for ultrasonographers are required.

4. Intrapartum Electronic Heart Rate Monitoring

Fetal Heart Rate Monitoring was introduced to help to identify the fetus in distress, so that appropriate intervention could be considered. Most studies show that electronic fetal monitoring has a high negative predictive value, that is, a normal tracing is very likely to be associated with a non-asphyxiated infant. Unfortunately, an abnormal tracing does not correlate as well with poor outcome and therefore must be interpreted with all other available data. The National Institute of Child Health and Development's Consensus Development Task Force on Antenatal Diagnosis and the Society of Obstetricians and Gynecologists of Canada suggest that the use of electronic monitors be strongly considered in "high risk" patients. There is no acceptable evidence to indicate any beneficial effects of electronic fetal monitoring in the pregnancy with no identified risk.

Because of the complexity and importance of evaluation of intrapartum fetal monitoring, the concerned reader is referred to Appendix 4.

Antepartum and intrapartum fetal heart rate monitoring are widely utilized in Canada today and are of apparent value. However, the literature is lacking in adequate studies to assess some of the applications of these techniques[202-243].

Recommendation #20 Properly designed prospective studies of antepartum and intrapartum fetal heart monitoring should be implemented to establish the validity of specific applications.

5. Tocolytics

Premature delivery is the most important contributor to perinatal mortality and morbidity. Prevention and treatment of premature labour are therefore of particular importance.

Effectiveness of tocolysis is difficult to assess due to methodological problems (e.g. in defining premature labour, in obtaining placebo medication with similar side effects to minimize observer bias, sample size, standardization of terminal objectives). Examination of reports shows that the objective of treatment was not always similar (e.g. to delay delivery for 24 to 48 hours, to reduce incidence of RDS or deaths, or to increase the number of term deliveries)[244-283].

Recommendation #21 Properly designed trials should be carried out to delineate side effects on mother and fetus and attempt to validate whether there is improvement in outcome by use of tocolytic agents.

6. Maternal versus Neonatal Transport

Precise assessment of the benefit of neonatal versus maternal transport is not possible since no randomized trial of transport versus retention of the mothers or neonates in non-specialized centres has been carried out. All reported studies have major methodological problems, not the least of which relates to the fact that in neonatal transport, the patients are selected before transport by evidence of illness, or

excluded where hopeful survival does not appear to be present. By contrast, selection of mothers for maternal transport is based on either current or potential problems. It seems apparent that fetuses requiring intensive and specialized care around birth would benefit from transfer to centres where that expertise is readily available. For this reason, although desirable, it seems that a randomized trial would be unethical.

Maternal transport for the sake of fetal or maternal potential problems has been accepted by the profession and all provincial health ministries in Canada. The concept of transporting the fetus at risk in utero to the perinatal team at an appropriate centre has reached a consensus in theory. This Committee strongly supports this concept.

Implementation of the concept of maternal-fetal transport is still inadequate because of application problems and lack of support at various levels of responsibility[284-302].

Recommendation #22. Maternal-fetal transport should be undertaken whenever possible in preference to transport of the distressed neonate.

Recommendation #23. Programs of maternal transport within the framework of a regionalized system should be implemented uniformly throughout Canada in preference to neonatal transport.

7. Amniotic Fluid Assays

Measurement of amniotic fluid optical density is of proven value in the management of isoimmunization as is the use of amniotic fluid for assessment of risk of certain genetic abnormalities in appropriately selected mothers. A large number of studies over the last several years on many of the

constituents of amniotic fluid have not proved to be of clinical use relative to fetal maturity. The major reviews at the present time relate to measurement of amniotic fluid phospholipids and especially the relationship of the Lecithin-Sphingomyelin (L/S) ratio to prediction of fetal lung maturity. There is a large body of evidence which supports the validity of these tests in relation to outcome. A review of the literature strongly supported this conclusion. These reviews did not include the disorders where the L/S ratio is of lessened value, for example in the diabetic pregnancy.

There was no review of the usefulness of the more recently recognized constituents of amniotic fluid such as phosphatidylglycerol (PG). However the Committee recognizes that this is an area of great promise[303-311].

8. Glucocorticoids and Enhanced Fetal Lung Maturity

The Committee wished to make a statement concerning this controversial therapy in the prevention of respiratory distress syndrome (RDS) in the premature infant, but time constraints precluded detailed literature review.

Two randomized clinical trials showed that glucocorticoids reduced the incidence of respiratory distress syndrome (RDS) but there has not been a clear demonstration of decreased perinatal mortality. There is no evidence of significant adverse short-term effects but long-term side effects potentially exist and are being evaluated (reference N.I.H. study).

Recommendation # 24. Because of potential hazardous long-term effects, glucocorticoids to prevent respiratory distress in the neonate should only be administered when it is felt that their definite short-term benefits are essential.

9. Intrapartum Care - Obstetrician, General Practitioner or Nurse in Reproductive Care

There are no Canadian studies available as the practice of Obstetrics by other than licensed physicians is not legal in Canada. Studies from the United States suggest that nurse-midwife practices are a safe, economical and acceptable means of providing obstetrical care to selected groups of women. The evidence is inconclusive to the extent that findings are confounded by:

1. A variety of practice settings from home to free-standing and hospital-based birth centres and regular hospital delivery suites.

2. Differing eligibility criteria for the nurse of reproductive care clients (and other selection factors).

3. Joint practice management and transfer to physician care at various points in the pregnancy.

The outcome of the studies can be classified under three broad areas, namely Safety, Acceptability and Cost. None of the studies demonstrated increased perinatal mortality as a result of supervision by a nurse in reproductive care. No study specifically addressed acceptability although all studies concluded that on the basis of continued demand and referral the system was acceptable. Despite initial reservations on the part of some physicians, all studies report eventual acceptance of the nurse in reproductive care service.

There are no Canadian data which examine the role of the family doctor vis-à-vis the obstetrician. Specialists are functioning as primary care physicians for many pregnant women and many family doctors do not practise obstetrics.

It would seem that there is a complementary role for each of the three: nurse in reproductive care, family physician and obstetrician. Any system will be most efficient when personnel are utilized appropriately according to their level of training[312-322].

Recommendation #25. Whereas the role of the nurse in reproductive care is recognized in many countries, it has not yet been agreed upon in Canada, and therefore the Committee proposes the establishment of a National Task Force to address this important issue. The "core" members of the Task Force should include clinical perinatal nurses plus obstetrical and pediatric perinatologists. Additional representatives should be appointed from appropriate medical and nursing professional bodies.

10. Mortality and Morbidity

There is general recognition that perinatal mortality may not be an adequate indicator to reflect quality of perinatal care or to highlight areas where preventive activity is required. However, neonatal morbidity has not been precisely defined. A study of some area of morbidity (e.g. neonatal seizures, mental retardation and cerebral palsy) might in part accomplish such a goal.

Recommendation # 26. Neonatal morbidity should be precisely defined and its appropriateness to reflect the quality and effects of perinatal care delineated and evaluated.

IV. REPORT OF THE SUBCOMMITTEE ON UNIFORM MATERNAL AND PERINATAL TERMINOLOGY

INTRODUCTION

At an early meeting of the Task Force on High Risk Pregnancy it was requested that uniform definitions of perinatal terminology be developed. Considerable work has been carried out in this area during the past 10 years. The Subcommittee used the following documents for developing recommendations for standardization of maternal and perinatal terminology:

1. Recommendations of the Perinatal Medicine Committee of the Society of Obstetricians and Gynecologists of Canada and the Fetus and Newborn Committee of the Canadian Pediatric Society, October 1974.

2. Information paper entitled "Hospital Perinatal Committee" published by the Canadian Institute of Child Health in 1981 and printed in "Dimensions in Health Care Services", 1979.

3. Williams Obstetrics, Sixteenth Edition, by Pritchard and MacDonald.

RECOMMENDED UNIFORM DEFINITIONS

Birth

Birth is the complete expulsion or extraction from its mother of a fetus weighing 500 g or more, irrespective of the gestational age.

Livebirth

Livebirth is the birth of a fetus, irrespective of gestational age, weighing 500 g or more which after its complete expulsion or extraction,

breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of the voluntary muscles.

Stillbirth (Fetal Death)

Stillbirth is the birth of a fetus weighing 500 g or more, irrespective of gestational age, who shows no sign of life after birth.

Abortion

Abortion is the complete expulsion or extraction from its mother of a fetus or embryo weighing less than 500 g irrespective of gestational age, whether there is evidence of life or not, and whether the abortion was spontaneous or induced.

Preterm Infant

An infant born before the 37th completed week of gestation (less than 259 days).

Term Infant

An infant born during a period beginning at the 37th completed week of gestation and extending to the 42nd completed week (259 to 293 completed days).

Post Term Infant

An infant born after 42 completed weeks of gestation (294 days or more).

Low Birthweight

A fetus or infant weighing less than 2500 g but 500 g or more at birth.

Full Birthweight (full size)

A fetus or infant weighing 2500 g or more at birth.

Birthweight

Refers to the first weight of the fetus or newborn obtained after birth. This weight should be measured within the first hour of life before

significant postnatal weight loss has occurred.

Recommended birthweight groupings:

500 g, up to and including 749 g
750 g, up to and including 999 g
1000 g, up to and including 1249 g
1250 g, up to and including 1499 g
1500 g, up to and including 1999 g
2000 g, up to and including 2499 g
2500 g, up to and including 2999 g
3000 g, up to and including 3499 g
3500 g, up to and including 3999 g
4000 g, up to and including 4499 g
4500 g, up to and including 4999 g
5000 g, and over

Early Neonatal Period

The interval after birth but during the first 7 completed days of life.

Early Neonatal Death

Death of a liveborn infant weighing 500 g or more at birth, during the first 7 completed days of life.

Early Neonatal Mortality Rate

The early neonatal mortality rate is the number of early neonatal deaths of infants weighing 500 g or more, per 1000 liveborn infants.

Late Neonatal Period

The interval beginning after 7 and up to 28 completed days of life.

Late Neonatal Death

Death of a liveborn infant weighing 500 g or more at birth after 7 but before 28 completed days of life.

Late Neonatal Mortality Rate

The late neonatal mortality rate is the number of late neonatal deaths of infants weighing 500 g or more, per 1000 liveborn infants.

Fetal Death (Stillbirth)

Stillbirth is the birth of a fetus weighing 500 g or more, irrespective of gestational age, showing no sign of life after birth.

Fetal Death Rate (Stillbirth Death Rate)

The stillborn infant rate is the number of stillborn infants weighing 500 g or more, per 1000 total births.

Perinatal Period

The interval from the time a fetus attains a weight of 500 g through to the first 7 completed days of intrauterine life.

Perinatal Death

Stillborn and liveborn infants, both weighing 500 g or more who died before birth, at birth, or during the first 7 completed days of life.

Perinatal Mortality Rate (500 grams or more)

$$\frac{\text{Fetal Deaths + First Week Neonatal Deaths (both 500 grams or more)}}{\text{Livebirths + Fetal Deaths (both 500 grams or more)}} \times 1000$$

Standard Perinatal Period

The interval from the time a fetus attains a weight of 1000 g through the first 7 completed days of life.

Standard Perinatal Death

Stillborn and liveborn infants, both weighing 1000 g or more who died before birth, at birth, or during the first 7 completed days of life.

Standard Perinatal Mortality Rate (1000 grams or more) (international)

$$\frac{\text{Fetal Deaths} + \text{First Week Death (both 1000 grams or more)}}{\text{Livebirths} + \text{Fetal Deaths (both 1000 grams or more)}} \times 1000$$

Note: "First Week" to be interpreted as seven periods of 24 hours.

Maternal Death

Death that occurs as a result of the reproductive process and which is made up of direct maternal deaths and indirect maternal deaths.

Direct Maternal Death

Death of the mother resulting from obstetric complications in the pregnancy state, labour or peurperium and from interventions, omissions, incorrect treatment or a chain of events resulting from any of the above. (Example, exsanguination from rupture of the uterus.)

Indirect Maternal Death

Death of the mother not directly related to obstetric causes but resulting from previously existing disease, or a disease that developed during pregnancy, labour or puerperium, but which was aggravated by the maternal physiological adaptation to pregnancy. (Example, mitral stenosis.)

Non-Obstetrical Death

Death of the mother resulting from accidental or incidental causes in no way related to pregnancy. (Example, death from an airplane crash.)

Maternal Mortality Rate

The number of maternal deaths that occur as a result of the reproductive process per 100 000 live births.

It should be noted that the above definitions of maternal mortality adapted from Williams Obstetrics do not specify a gestational time period. It is suggested that for use in this definition the time from conception to 42 days postpartum be accepted.

Recommendation #27. The Task Force recommends that the foregoing definitions of uniform terminology for maternal and perinatal statistics

be adopted for use throughout Canada. It is further recommended that these definitions be forwarded to the appropriate federal and provincial authorities for further discussion with a view to their implementation.

V. FUTURE OF THE TASK FORCE ON HIGH RISK PREGNANCY

As discussed in the general Introduction, the Report of the Canadian Commission for the International Year of the Child recommended that governments "adopt a policy making maternal and child health a priority for the next five years". The Task Force on High Risk Pregnancy has welcomed this opportunity to have input into aspects of management of the prenatal period, attention to which will result in improved outcome for mothers and babies. Knowledge and attitudes to perinatal care are changing rapidly and the Task Force considers it important that the momentum for improved care attained through its establishment not be lost. The Task Force therefore recommends that an ad hoc committee on prenatal and perinatal care be established in association with the committee set up to follow-up on the recommendations of the Canadian Commission for the International Year of the Child.

Recommendation #28. An ad hoc committee of experts on prenatal and perinatal care be established and be charged with follow-up of the Report of the Canadian Commission for the International Year of the Child and this Task Force Report for the specific purpose of ensuring that Canadians attain optimal outcome of pregnancy as previously defined.

APPENDIX 1

REFERENCES

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REFERENCES

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APPENDIX 2

TASK FORCE MEMBERS AND CONSULTANTS

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TASK FORCE MEMBERS AND CONSULTANTS

MEMBERS

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APPENDIX 3

REPORT OF SUBCOMMITTEE ON THE PRENATAL RECORD

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REPORT OF SUBCOMMITTEE ON THE PRENATAL RECORD

CONTENTS

1. Philosophy and Functions of Prenatal Record
2. Content of Prenatal Record
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   - 2.3 Risk Factors
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1. Analysis of Provincial Prenatal Records and Their Functions

The recording and documentation of obstetric information has, over the years evolved into the collection of a relatively uniform data base contained in a prenatal record. This prenatal record is used in pregnancy as a single, complete and comprehensive summary of the several factors which might directly, or indirectly, influence the outcome of the pregnancy. At each visit the physician can quickly refresh his/her memory and evaluate any changes from previously recorded baselines. It also forms a record which can be transferred with a woman or used on the labour floor so that management at this time is appropriate to antecedent events. On reviewing the examples of the prenatal forms from eight provinces that were available to the Committee, these functions appear to be recognized in principle by all provincial records.

All provinces provide a mechanism for the physician to retain the original prenatal sheet while still allowing at least one copy of this information to be received by the hospital or the patient.

All provincial prenatal sheets recognize the need for certain basic background information and in addition provide line-by-line space for each prenatal visit in the current pregnancy. The items of information that are recorded at each prenatal visit are almost uniform throughout the country and the number of visits that can be recorded on one prenatal sheet varies from 14 (5 provinces) to 19 (Newfoundland). Each prenatal form lists a number of items as "reminders" (some check-off items) so that the record when completed will contain a consistent minimum data base for each pregnant patient. On the whole, there is surprisingly little variation in the basic content of the different prenatal sheets (see pages 94-95). Information related to history and ongoing prenatal visits is already relatively "standardized" in most instances.

Again, while the design format and number of pages contained within the record differs from province to province, it is quite

evident that each prenatal sheet from each province is an attempt to provide the physician with a practical document that is primarily used for patient management. The "reminder" or menu system, with or without a checklist, makes history taking and recording quicker, assists in a review of material at each subsequent woman's visit, and to some extent overcomes some of the problems of illegibility if more than one physician is involved in the woman's care. The predominent intent seems to be a functional record for use in patient management. None of the provincial forms appear to be specifically designed for the subsequent collection and storage of collective data or for computerization.

The principle of recognizing certain factors that may increase the risk of a poor maternal or fetal outcome for the current pregnancy, and of listing these as an aid to the attending physician, seems to have been established by at least seven of the eight provinces. Here, however, there is less uniformity. Some provinces use a broad grading or classification system in which there are differences in the choice of risk factors within each category. Others use a scoring system for risk identification and these numerical scoring systems differ between provinces.

In summary, it is apparent that all provincial prenatal forms have certain features in common. The standardization of the prenatal record as it has evolved in each province seems to be an attempt to assist the physician in the following:

1. Assure a complete basic record necessary for the proper management of the pregnant woman.

2. Reduce the amount of time taken to obtain this record.

3. To provide a means for the attending physician to review "at a glance" baseline data and information from previous prenatal visits which might influence subsequent management.

4. To provide some assistance to clinical judgment by indicating risk factors that allegedly influence outcome.

5. To provide a means of continuity for the recording of antecedent events that might influence management when the woman enters a labour unit or when the responsibility for patient care is transferred to another physician.

2. Content of Prenatal Forms

These functional recording systems are an attempt to meet the needs of both family physicians and specialists. It is important to recognize that compromises are necessary to achieve the needs of both groups. The proportion of deliveries carried out by family physicians varies from province to province but it is estimated that at least 50% of all deliveries in the country are still performed by this group. Therefore, in considering the function of a prenatal record, it is obvious that the needs of family physicians must be taken into consideration. Despite distinctive differences in referral patterns of obstetric practice between provinces and despite the need to serve both specialist and family physician there is in fact a fair degree of uniformity of content in all the prenatal forms. With minor adaptations each provincial prenatal form could contain the same basic information since differences that are currently existing are of a minor nature. An attempt at uniformity of content for specific high-risk factors may be a more contentious issue.

2.1 Factors considered basic or essential and common to most prenatal sheets

Method of patient identification
Identification of attending physician
Age, date of birth of patient
Parity
L.N.M.P.
E.D.C.
Menstrual cycle

Contraception/date discontinued

Genetic amniocentesis

Bleeding since L.N.M.P.

Past obstetric history

stillbirth, neonatal death, prematurity, abortion, number of living children

Previous confinements

dates, birthweight, gender, gestation, type of delivery, pregnancy/labour complications, neonatal complications

Past medical history

renal, cardiac, infertility, infections, diabetes, epilepsy, urinary tract infections, allergies, previous blood transfusions and operative procedures

Family history

diabetes, twins, congenital malformations, hereditary deafness, T.B., hypertension

Present history

hyperemesis, febrile illnesses, current medications, alcohol and drug use, smoking

Investigations

Hb, Rh, serology, Rubella, cytology, blood sugars, pregnancy tests and mid-stream urine for culture

Initial examination

pre-pregnancy weight, height, current weight, complete examination and pelvic examination, uterine size compared to gestation

Repeat examinations or subsequent visits

dates, gestation, weight, urine analysis, blood pressure, fundal height, presentation, fetal heart rate, remarks or comments, time of next visit

Risk Identification

This process forms a component of most of the prenatal forms that were reviewed. By common usage therefore it seems that

some form of risk identification process should be included as an essential component of the prenatal form. This is particularly the case if one of the purposes of the record is to assist family physicians; a list of risk factors may serve as a reminder for the particular patient under review.

2.2 Optional features for prenatal forms

These features may be of assistance to the attending physician but tend to be a matter of personal inclination. In addition, these items are not likely to significantly affect patient management. There is not a great deal of evidence that their documentation significantly affects the outcome of pregnancy. Some prenatal forms include space and reminders that summarize completed investigations. For example - Rh Gamma Globulin, ultrasound, G.T.T., medications, 28 weeks referral plan, consultation, etc.

Growth-curve charts are another feature as an aid to diagnosis of "large-for-dates" or "small-for-dates".

Documentation (optional)

Occupation of patient
Religion of patient
Ethnic origin of patient
Name of father
Occupation of father
Religion of father
Nutritional history
Hospital
Type of anesthesia requested
Labour requests
Father delivery
Rooming-in
Early discharge
Circumcision
Pediatrician

Discussion Topics (optional)

These appear to be a reminder of topics that could profitably be discussed with the patient; whether the majority of physicians have sufficient time to carry out an in-depth discussion of these topics may be another matter.

Weight gain
Smoking
Alcohol
Breast feeding
Prenatal classes
Work plans
Exercise
Coitus

2.3 Risk Factors

The validity of currently-used predictors of unfavourable outcome and the basis upon which these outcomes are identified is the topic of review by another sub-committee. The suggestion at this stage, in this document, is that some form of risk identification be retained either as an essential or optional feature of a prenatal record since most provinces have already taken this route. Provided they are used as an aid to clinical judgment, their inclusion probably serves a useful purpose particularly for practitioners who do not have a heavy obstetric caseload.

The Committee during a discussion on risk markers decided that a number were sufficiently obvious that further research into their validity was not necessary. Presumably the following list, agreed to by the major Committee, could form a minimum list:

Low birthweight
Previous stillbirth or neonatal death

Medical disorders
Rh Isoimmunization
Gestational diabetes
Multiple pregnancy
Premature spontaneous rupture of membranes
Prematurity
Malpresentation

Many other risk factors are included in the various prenatal forms that have been distributed to all Committee members. The inclusion or exclusion of these other risk factors will presumably depend on the outcome of the deliberations of the sub-committee reviewing this topic.

3. Design of Prenatal Form

In contrast to the content of the prenatal forms which contain many common basic medical/obstetric fields, the design of each provincial prenatal form varies considerably.

One point on design that could probably be agreed upon is that at least one copy of any prenatal form should be available so that a duplicate could be retained as part of the patient's hospital record. Improvements in design of a prenatal form should have input from those persons most closely involved in its use. This design should facilitate the functions of the prenatal record that have already been discussed.

4. Data Collection

Since each provincial prenatal form contains almost the same basic information with respect to each pregnancy it is tempting to consider the collection of data from this source. This is particularly the case with respect to information that might be obtained about the ratio of risk pregnancies handled by hospitals, the precise gestation in pregnancy that specific risks might be identified and the determination of any geographic differences in the proportion of risk

pregnancies. The prevalence of rubella susceptibility, nutritional status, or number of prenatal visits might be other examples of useful information on a provincial or national basis. However, there are certain difficulties connected with the use of prenatal forms for accurate data collection.

These are summarized below:

1. Compliance in the use of a specific form

   Any attempt at data retrieval must capture nearly all of the obstetric population. This is impossible unless all physicians in a province use a standardized prenatal form.

2. Compliance for completion

   A survey of over 2000 prenatal records by a Task Force of the Social Planning Council in Manitoba showed a wide range of variation on an item-per-item basis as far as completion rates were concerned. Some items had a completion rate of greater than 80%, others less than 50%. Obviously data collection with this type of variation will produce inaccuracies if there are a number of missing fields.

3. Accuracy of recorded data

   In all prenatal sheets there are a number of items that would contain "soft" information. For instance if accurate information was to be obtained on smoking it should include the type of cigarette, the amount of nicotine contained in this brand, the number of cigarettes smoked, the gestation during which smoking continued and when the patient stopped smoking during pregnancy, if this was the case. Similar examples can be found with respect to alcohol and drug use, etc.

4. Outcome data

   The interpretation of information from the prenatal sheet in

many instances requires knowledge of the final outcome of the pregnancy. This raises a number of difficulties with extracting material from hospital records, and again raises the question of accuracy with respect to Apgar scores and other measurements of outcome.

5. Analysis of data

The collection of information certainly implies its analysis and this raises the further question of which central agency would be the coordinator for the retrieval of this information; where would it be centralized and who would undertake any analysis?

For example, a nutritional history would certainly require more space and more specific questions than are currently present on any of the prenatal forms. The concept of data collection along these lines is more suggestive of a survey and would require more time than is realistically available to the practising physician.

It is extremely important, therefore, to clearly define the function of a prenatal record. Because a working document for the practising physician is incompatible with a document designed for accurate data collection, attempts at compromise to achieve both goals will almost certainly result in a document that does not satisfy either objective.

5. Summary and Conclusions

A review of the prenatal sheets in use across Canada shows that a common purpose is to function as a clinical document for the practising physician. Despite their apparent diversity all forms are fairly uniform in their content of basic obstetrical information and material. The inclusion of aids to assessing obstetric risk appears to have been accepted as a principle by almost all of the

provinces but there is very little uniformity with respect to the risk assessment systems in use. There is a wide diversity in design of most prenatal forms.

It would appear that general agreement could be reached upon the functions of a prenatal record and the inclusion of the necessary basic information that should be contained in a prenatal form as a minimum data base for patient management. The question of design will likely be much more difficult to resolve, particularly within the time constraints pending a final report of the Committee. The issue of using prenatal forms for data collection of a substantial nature is probably unrealistic although some agreement might be reached upon specific items of information, common to all forms, that might be collected on a provincial basis for comparison. The issue of risk assessment and the appropriate markers for such assessment is being reviewed by another sub-committee and the results of these deliberations could be incorporated into prenatal records if it was felt to be appropriate.

APPENDIX 4

LITERATURE REVIEW: FETAL HEART RATE MONITORING

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LITERATURE REVIEW: FETAL HEART RATE MONITORING

INTRA-PARTUM FETAL MONITORING

INTRODUCTION

Fetal heart tones have been accepted by clinicians as being important since the early 1800s. The use of auscultation and the recognition of fetal heart rate patterns were propounded by Kennedy in Dublin in a monograph published in 1833. In the latter half of the 19th century, Schwartz recommended that FHR be recorded during labour, both between and during contractions and suggested that fetal "asphyxia intoxication" modified fetal heart rate as did uterine contractions. Likewise, other physicians noted erratic patterns and the effect of drugs on these patterns about the same time. It is surprising, therefore, that these concepts largely disappeared until the 1950s when obstetricians again became interested in fetal heart patterns.

The few studies in the 1950s, using auscultation, suggested that the early definitions of fetal distress using fetal heart patterns were inadequate and poor predictors.

The use of electronic monitors has varied over previous decades, but recently has returned to prominence with improved equipment and the addition of fetal scalp sampling and other monitored variables. The prevailing philosophy in the 1980s appears to be that if bigger, better or more monitoring is done, it will be possible to identify all fetal distress and intervene in adequate time. How true is this?

Although several papers appeared in the late 1960s, it was not until the 1970s that real attention was paid to the evaluation of the usefulness of Fetal Heart Rate Patterns in the prediction of fetal distress. For this reason the literature has been reviewed from 1970 to the present day.

FORMAT OF LITERATURE REVIEW

Based on the same criteria used in the Task Force on the Periodic Health Examination, we looked at:

1. The burden of suffering
2. The validity and acceptability of manoeuvre
3. The effectiveness of the resulting intervention.

Number 2 has been divided further into the question posed in the original preliminary summary on fetal monitoring presented to this Committee in June. These are:

1. What is the objective of the risk indicator?
2. How well does it meet the objectives?
3. Who identifies the marker?
4. What are the costs?
5. What are the benefits?
6. What psychological cost is there?

The papers have been reviewed in reverse chronological order and have been divided into categories according to the strength of the research design and the quality of the evidence.

Burden of Suffering

The most common outcome measure suggested was perinatal mortality. In 1978, in Ontario, this accounted for 14.6/1000 deliveries. Although this appears high compared to other industrial nations, it is not common enough to be useful in any single series of cases. Because of the small denominators, any estimate of perinatal mortality is necessarily precarious and, without a confidence interval, can have little meaning on its own.

The second most frequent outcome suggested was Apgar Score which is used as a substitute measure of 'fetal distress'. It is

difficult to obtain the true incidence of low Apgar Scores (<7) in a total population since none of the authors carried out a community survey and hospital audits reflect the referral bias. The average estimate seems to be about 15% but this is probably high due to these biases.

Question 1: *WHAT IS THE OBJECTIVE OF THE INDICATOR?*

For fetal heart rate monitoring, the objective is to speedily identify the fetus in *distress* so that steps can be taken to prevent intra-partum death or the birth of an asphyxiated fetus, destined to have problems particularly in the first week of life. The implied philosophy is that a *distressed* fetus will be at high risk of perinatal death or a neurologically poor outcome resulting in handicap.

(The word 'distress' appears in italics because there is frequent argument concerning the difference between 'stress' and 'distress' and those two terms should be distinguished.)

Question 2: *HOW WELL DOES THE INDICATOR REACH ITS OBJECTIVE?*

The bulk of the papers deal with this question. There are two aspects to this question. The first (a) is how good is the indicator at doing its task and for this it will be necessary to look at fetal monitoring as a diagnostic test and explore its properties, sensitivity, specificity and predictive values. The second aspect (b) is to judge whether, despite its strengths and weaknesses, fetal monitoring as a diagnostic test has proved useful enough to alter the outcomes of delivery.

Under ideal test conditions, there should be 100% accuracy and no false positives or negatives, when gauged against a gold standard.

The gold standard used in the majority of papers was a low Apgar Score (< 7) and occasionally perinatal death. Sometimes, Apgar Score was associated with scalp pH.

Randomized Clinical Trials

Because of the use of comparable groups, the four RCT's did not address the problem of accuracy but went directly to the 2nd aspect of outcomes.

Cohort

The cohort studies likewise looked at comparability of outcomes and not at test itself.

Descriptive (Case Series)

The following table summarizes the papers in chronologically reverse order:

		1' Apgar <7			
Review	n	+Predictive Value	-Predictive Value	Sensitivity	Specificity
1. Westgren et al.	5037	NC	NC	NC	NC
2. Phillips et al.	37	"	"	"	"
3. Liu et al.	50	"	"	"	"
4. Goodlin et al.	1100	"	"	"	"
5. Nochimson et al.	?	"	"	"	"
6. Amato	3076	"	"	"	"
7. Lee et al.	?	"	"	"	"
8. Saldana	620	23.0	86.2	70.6	43.7
9. Chik et al.	61	22.6	79.3	87.5	47.8
10. Tejani et al.	200	27.4	91.4	74.3	58.2
11. Tutela et al.	608	NC	NC	NC	NC
12. Edington et al.	911	"	"	"	"
13. Shenker et al.	760	39.0	77.8	53.4	66.2
	413	16.4	90.4	38.3	67.5
	1566	15.4	90.2	44.8	74.7
14. Thomas	946	NC	NC	NC	NC
15. Sturbois		68.4	91.4	76.5	87.6
	131	51.3	84.8	58.8	80.4
		52.8	84.2	55.9	82.5
16. Gabert et al.	396	NC	NC	NC	NC
17. Kelly et al.	150	"	"	"	"
18. Gabert et al.	749	66.2	91.4	84.3	79.5
19. Shenker	1000	24.5	89.7	68.4	56.6
20. Schifrin et al.	307	42.9	93.0	53.9	89.6
21. Paul	1798	NC	NC	NC	NC
22. Paul et al.	245	"	"	"	"

Why is there such a difference in predictions? The main contribution to the variable predictive rates is the bias of referral. It is impossible to find details of the population except that, for the most part, the papers are dealing with high risk patients by their own criteria. The one exception is that of Westgren (#1) which looks at low risk and Amato (#6) who looks at a community hospital.

The worrisome aspect of these results is that, with one or two exceptions only, most of the authors were optimistic and enthusiastic proponents of monitoring despite positive predictive values dropping as low as 15%. The logical extension of these results is even more worrisome. Since the papers with low predictive values all studied high risk patient populations with a high prevalence of poor outcomes, things can only get worse if a 'normal' population is monitored since a lower prevalence will lead to more false positives being identified.

On the other hand, the high negative predictive values which were universally achieved are reassuring. This indicates that if the FHR tracings are normal then one can state with confidence that a normal fetus will result.

A summary of the methodological guidelines for a diagnostic test and the papers' approximation to those may provide a better appreciation of the problems. (See table on page 96).

Biases: Gold Standard

Apgar as a gold standard (best available estimate at the moment) may not be the best measure of fetal distress. Perinatal mortality is susceptible to small sample estimates.

Patient Sample Includes Spectrum of Disease

Most of the populations were 'high risk' (according to a variety of criteria) or low risk but only one is a community based hospital. As a result, the features of the test cannot be generalized.

Diagnostic Test

RCTs	Gold Standard	Patient Sample	Study Setting/Referral	Precision/Variation	Normal Defined	Technique Described	Utility of Test	Properties Discussed	Percentage Monitored
Haverkamp	X		X	X	X	X			
Kelso	X		X		X	X			
Renon	X		X						
Haverkamp	X		X		X	X			
COHORT									
Krebs	X	X			X	X	X	X	
Paul	X		X						
DESCRIPTIVE									
Westgren	X		X						
Phillips	X				X				
Liu	X				X				
Goodlin	X		X		X				
Nochimson	X				X	X			
Amato	X	X							
Lee	X		X		X				
Chik	X				X	X			
Tejani	X					X			
Tutela	X					X			
Edington	X		X		X				
Shenker	X				X	X			
Thomas	X				X				
Sturbois	X				X	X	X	X	
Gabert	X								
Kelly	X								
Gabert	X	X				X	X		
Shenker	X								
Shifrin	X				X	X	X	X	
Paul	X					X			

Study Sample/Referral Pattern

Not only does the referral pattern affect the outcome, it also contributes to an 'apparently' more accurate test if only high risk patients are included or a poor test if only low risk is considered. The second point is the percentage of total patients included. In many papers it is a small, perhaps carefully selected group of patients.

Precision/Variability

Only one paper discusses observer agreement and that is the clinical trial of Haverkamp. In any large series, if there exists intra- and inter-observer variability, it could under- or overestimate the value of the test.

Normal Defined

If normal/abnormal is not defined, it is impossible to assess the usefulness of the results.

Technique of Test

The same comment can be made for describing the test. Some of the papers carried a lot of detail which was helpful, others just 'monitored'.

Utility of Test

This was poorly documented. The bias resulting from its absence can be in the direction of overemphasizing the usefulness and raising false hopes in the interpretor of the results.

Properties

It was surprising that the obvious proponents of monitoring were blithely unaware of what their results were showing. Most did not discuss the problems of false positives and false negatives or discussed these as irrelevant. The bias of interpretation is strong.

Question 3: *WHO IDENTIFIES THE MARKER?*

The majority of papers make the point that personnel are trained both for the hooking up of the monitor and also the reading of the tracings. One paper goes as far as to point out that their unit has a fetal intensive care unit where a 'monitoring team' does all the intra-partum monitoring and this they consider essential.

How well are the tracings read? Haverkamp's second trial reports a 90% agreement between observer, but this is not borne out in a paper devoted to assessing tracings, written by Trimbos and Kierse. In their study, 100 tracings were presented twice to five readers in a random fashion and five components were assessed: Basal heart rate; oscillation amplitude and frequency; accelerations and decelerations and a sixth pooled index where 0, 1, 2 were assigned to each of the five components giving scores ranging from zero to 10. The following results were obtained:

Agreement	Basal HR		Oscillating Amplitude		Oscillating Frequency		Accel.		Decel.		Fischer's Score	
All 5	96	96	40	37	47	47	34	69	65	71	47	64
1 and 4	1	2	35	42	38	20	29	22	16	15	25	25
2 and 3	2	2	24	20	12	16	25	7	13	8	27	9
3,1,1, or 2,2,1	-	-	1	1	3	-	12	2	6	6	1	2

The accelerations were so variable that it had to be redefined in terms of amplitude and duration. Seven to 13% of the results were thought to warrant immediate intervention and then changed to normal on the second occasion.

The paper concludes that the interpretation of cardiotocogram (CTGS) is not as easy or reproducible as one might wish.

Question 4: *WHAT ARE THE COSTS?*

Banta and Thatcher, in their paper on the assessment of costs and benefits of electronic fetal monitoring, have estimated both direct and indirect costs and both are stated to be conservative. The direct cost of fetal monitoring looks at equipment services; neonatal and maternal morbidity due to monitoring as one component and direct and indirect cost of Cesarean section. It is difficult to judge how appropriate the costs are but they are estimated to run around $411 million per year in the U.S.

Other papers have not tried to estimate monetary cost but have tabulated the amount of equipment which would be required for 100% monitoring. The estimates of a monitor to patient rates range from 1/300 - 1/500 patients.

The medical costs are better documented. The four randomized clinical trials reported increased c/s rates, with those of Haverkamp putting the rate as double that of an ausculated group.

The descriptive papers show variable Cesarean rates. Most suggest that it stays about the same, others claim a reduction and one or two show an increase. Unfortunately, without proper controls, it is hard to estimate.

Other medical costs to the mother can include lacerations of the mother or placenta and uterine perforation although these are rarely reported. Fetal costs include scalp lacerations; hemorrhage occurring in 0.3% cases and scalp abscesses. If amniotomy is done, a prolapsed cord is possible. More severe sequelae can occur, but are rare.

Cesarean sections can have risks for the fetus lung, but estimates of the extent of this are scanty.

Question 5: *WHAT ARE THE BENEFITS?*

The best evidence comes from the clinical trials because the patients had an equal chance of being ausculated or monitored. Of the four trials, three reported no benefit, but the fourth trial was stopped because it was felt that monitoring had proved to be superior. Unfortunately, the fourth trial had done frequent analysis of the data without an '*a priori*' set of stopping rules.

The cohort studies, like the descriptive studies reported an improvement in neonatal and perinatal mortality. Most also reported similar or fewer low Apgar scores. Lack of truly comparable groups make these claims impossible to assess.

Question 6: *WHAT ARE THE PSYCHOLOGICAL COSTS TO MOTHER?*

Some women reported anxiety and discomfort with the insertion of the electrodes, but often found the monitoring reassuring. One paper, by Starkman, enumerates the feelings of 35 women who had been monitored. Those who had had a previous fetal loss were positive about the benefits; those of low risk and no previous loss were predominantly negative.

SUMMARY

What conclusions can we come to in the light of the conflicting evidence? What follows is a series of quotes from the papers which have been evaluated, followed by a list of the recommendations from the NICHD Consensus Development Task Force Report: Predictors of Intrapartum Fetal Distress - The Role of Electronic Fetal Monitoring.

Quotes:

Paul (1974): 'To evaluate fetal monitoring fully, a well designed obstetric study combined with comprehensive infant growth and development studies is necessary.'

Kelso (1976): 'No beneficial or deleterious effects of continuous Fetal Heart Rate shown.'

Renou (1976): 'Highly trained staff necessary.'

Westgren (1980): 'Fetal Heart Rate Pattern irreproachable in less than 50% of tracings. Can mislead clinicians into unnecessary procedures.' (He advocates FHR monitoring but sees it as a screening device rather than a diagnostic test.)

Goodlin (1977): 'Prolapsed cord and abruptio placenta diagnosed not by FHR but by nursing care.'

Amato (1977): 'Although differences seen, they are usually in the lower birthweights. Once over 2500 grams, the differences disappear.' (This may be one explanation why the clinical trials of Haverkamp showed no differences - he did not monitor less than 34 weeks GAs.)

Lee (1976): 'Fetal monitoring can predict a good outcome but seems to overestimate problems.'

Tutera (1975): 'Technical difficulties and complications can occur.'

Edington (1975): '20% of bad outcomes cannot be predicted by FHR.' (This point also made by Paul in one of his papers where he explored the physiological and biological reasons why intrapartum monitoring could fail - uterine contractions unpredictable, cord position, etc.)

Shenker (1975): 'Statistically, the method of delivery is almost as accurate a predictor of low APGAR scores at one minute as monitoring record.'

Thomas (1975): 'Late decelerations are frequently temporary and not serious.' Monitoring is good screening, not a diagnostic device.

NICHD Consensus Development Task Force

Recommendations for current clinical practice:

1. The electronic fetal monitor or any other technology should never be a substitute for clinical judgment. Electronic fetal monitoring is only one method of fetal assessment.

2. Proper use of both intermittent auscultation and continuous electronic fetal monitoring in both high- and low-risk patients should, at the outset, include a discussion with the patient of her wishes, concerns and questions concerning benefits, limitations, and risks of fetal monitoring. Women should have the opportunity to discuss the use of all forms of monitoring during the course of prenatal care, and again upon admission to the labour suite.

3. Periodic auscultation of the fetal heart rate is an acceptable method of assessment of fetal condition for women at low risk of intrapartum fetal distress. Interpretation of auscultated fetal heart rate data should include an understanding of the relationship of FHR changes to uterine contractions. Although the Task Force finds no evidence that electronic fetal monitoring reduces morbidity and mortality in low-risk patients, it recognizes that, under certain circumstances, mothers or physicians may choose to use electronic fetal monitoring even in low-risk situations.

4. The use of electronic fetal monitoring should be strongly considered in high-risk patients. Some of the high risk situations may include: (a) low birth weight, prematurity, postmaturity, and IUGR; (b) medical complications of pregnancy; (c) meconium staining of the amniotic fluid; (d) intrapartum obstetrical complications; (e) use of oxytocin in labour; and (f) the presence of abnormal auscultatory findings.

   The medical record should reflect careful consideration of the benefits and risks to each patient, including a discussion of the indications for electronic fetal monitoring with the patient.

5. Since unexpected risk factors may arise during labour in patients without prior evidence of risk, all hospitals and birthing centres providing maternity care should have the necessary trained staff and equipment to assess carefully the status of each fetus in labour and to take appropriate action.

6. In order that electronic fetal monitoring be used appropriately, the medical profession and others should encourage, through their various educational modalities a thorough understanding of the principles and procedures of intrapartum FHR assessment by personnel responsible for the care of pregnant women. Special attention should be given to benefits, limitations and risks.

7. The use of fetal scalp blood pH determination is strongly encouraged as an adjunct to electronic FHR monitoring.

8. Attention to the known potential hazards of electronic fetal monitoring should accompany its use. Placement of the fetal scalp electrode and intrauterine pressure catheter should be performed with attention to aseptic and atraumatic technique. Prolonged supine position of the mother should be avoided, and maternal mobility should not be unnecessarily limited.

9. Hospital personnel should be cognizant of the potential impact of electronic fetal monitoring upon family centered childbirth. Family-centered care and indicated intrapartum electronic fetal monitoring are not mutually exclusive. Maternity services should be encouraged to integrate concepts of family-centered care with care of women who are electronically monitored.

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APPENDIX 5

PROVINCIAL PRENATAL RECORD FORMS

PRENATAL RECORD

PART I

BRITISH COLUMBIA

HOSPITAL

1. NAME

RACIAL ORIGIN

ADDRESS

TELEPHONE NUMBER

MOTHER'S AGE | DATE OF BIRTH | OCCUPATION

MARITAL STATUS

DOCTOR'S NAME

FATHER'S NAME

RACIAL ORIGIN

FATHER'S AGE | FATHER'S OCCUPATION

M S P NUMBER

DOCTOR'S PHONE NUMBER

2. OBSTETRICAL HISTORY INCLUDING ABORTIONS

DATE	PLACE OF CONFINEMENT OR ABORTION	DUR PREG	HOURS OF LABOUR	TYPE OF DELIVERY	COMPLICATIONS MOTHER AND/OR INFANT	CHILD SEX	CHILD BIRTH WEIGHT	CHILD PRESENT HEALTH

3. RISK ASSESSMENT

Reproductive History

- ☐ Age - less than 15, greater than 35
- ☐ Parity 5 +
- ☐ Weight - less than 45, greater than 90kg (< 100, > 200 lbs.)
- ☐ Habitual Abortion
- ☐ Stillbirth/Neonatal Death
- ☐ Fetal Anomalies
- ☐ Labour Premature
- ☐ Labour Prolonged
- ☐ Labour precipitous (< 3 hours)
- ☐ Difficult Delivery
- ☐ Post p. Hemorrhage, Manual Removal
- ☐ Preeclampsia/Hypertension

Associated Hi Risk Conditions

- ☐ Uterine Surgery or Malformations C-section Cone Biopsy, Cervical Suture, etc.
- ☐ Chronic Renal Disease
- ☐ Diabetes (incl. Gest.)
- ☐ Cardiac Disease & Hypertension
- ☐ Serious Medical, Surgical or Psychiatric Disorders

4. HISTORY OF PRESENT PREGNANCY (Specify)

NO	YES	
☐ BLEEDING (Date)	☐	
☐ PYREXIA (Date)	☐	
☐ RADIATION (Date)	☐	
☐ NAUSEA	☐	
☐ SMOKING (Query pattern of usage)	☐	
☐ ALCOHOL, DRUGS (Query pattern of usage)	☐	
☐ OCCUPATIONAL	☐	

NUTRITION (24 hour recall) GOOD ☐ FAIR ☐ POOR ☐

5. PAST ILLNESS (Specify)

NO	YES	
☐ RENAL	☐	
☐ CARDIAC	☐	
☐ INFECTIONS	☐	
☐ RUBELLA	☐	
☐ VENEREAL	☐	
☐ ALLERGIES	☐	
☐ OPERATIONS	☐	
☐ TRANSFUSIONS	☐	
☐ OTHERS	☐	

6. FAMILY HISTORY (Specify)

NO	YES	
☐ DIABETES	☐	
☐ CARDIAC	☐	
☐ HYPERTENSION	☐	
☐ TUBERCULOSIS	☐	
☐ TWINS	☐	
☐ MALFORMATIONS	☐	
☐ OTHERS	☐	

7. MENSTRUAL HISTORY

L M P (Date)

E D C

IF UNSURE, CONSIDER EARLY ULTRASOUND

MENSTRUAL CYCLE

8. METHOD OF CONTRACEPTION

(Specify)

DATE OF DISCONTINUANCE

9. CURRENT MEDICATIONS

10. EXAMINATION

DATE

GENERAL CONDITION

HEAD & NECK

B.P. mm Hg

BREAST & LYMPH NODES

HEART & LUNGS

ABDOMEN

SPINE

VARICES & SKIN

PELVIS NORMAL, ABNORMAL (Describe)

CERVIX CYTOLOGY (Class No.)

OTHER OBSERVATIONS

SIGNATURE

MD

11. TOPICS FOR DISCUSSION AND ADVICE

Alternate Physician(s)	Bowels
Genetic Counselling	Baths
Prenatal Course & Classes	Clothes
	Books
Nutrition	Breast Care
Supplements	Breast Feeding
Wt. Control	Baby Care
Exercise	Labour Stages
Hosp. Adm. Procedures	Rest
Arrival at Hospital	Smoking
Anaes. & Analg.	Alcohol
Coitus	Medications

HLTH 1582 *Prepared by* THE PERINATAL PROGRAM OF BRITISH COLUMBIA

Q.P. 30472/1 Vancouver, B.C.

WHITE COPY - MOTHER'S CHART

YELLOW COPY - INFANT'S CHART

PINK COPY - PHYSICIAN'S

PRENATAL RECORD — PART II

HOSPITAL

12. LABORATORY

Blood Group	Haemoglobin Initial	Haemoglobin 36-38 Weeks	A.R.T. Test
Rubella HI Titre	Hepatitis Carrier?		Rh Antibody Titre Dates / Results
	Rh Factor		

DOCTOR'S NAME

13. RISK FACTORS TO BE ANTICIPATED (PART 1)

	NO	YES	
PREGNANCY	☐	☐	
DELIVERY	☐	☐	
NEWBORN	☐	☐	

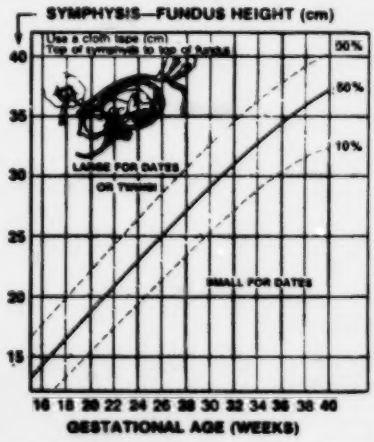
Risk Factors in Present Pregnancy ?

- ☐ Uncertain Dates (after 20 weeks)
- ☐ Poor Weight Gain Weight Loss
- ☐ Bleeding
- ☐ Anemia < 10 gm %
- ☐ Suspected IUGR
- ☐ Multiple Pregnancy
- ☐ Hydramnios
- ☐ Malpresentation (> 34 weeks)
- ☐ Isoimmunization
- ☐ Hypertension
- ☐ Prolonged Pregnancy (> 42 weeks)
- ☐ Pruritus
- ☐ Premature Rupture Membranes

AGE	GRAV	PARA	ABORTIONS	LIVING CHILDREN	L M P	EDC	DATE OF QUICKENING

DATE	WT	B P	URINE	GEST AGE IN WEEKS	HT OF FUNDUS CMS	F H & ACTIVITY	PRESENT & POSITION	RISK ASSESSMENT (Low, Med High)	MEDICATION - REMARKS	RETURN IN

NOTE: SEND HOSPITAL COPIES AT 37 WEEKS



14. PHYSICIAN TO CARE FOR INFANT:

15. SPECIAL INVESTIGATIONS (ULTRA SOUND LABORATORY ETC.) OTHER COMMENTS

PHYSICIAN IN CHARGE OF PATIENT

M.D

LABOUR SUMMARY AND DELIVERY RECORD — PART 1

1 GRAV | PARA | ABORTIONS SPONTANEOUS ☐ ELECTIVE ☐

LMP | CYCLE | QUICKENING

EDC SURE ☐ UNSURE ☐ | GESTATION

BLOOD GP | LAST TITRE DATE | LAST HgB DATE | RUBELLA TITRE

2 **PREGNANCY** SINGLE ☐ TWINS ☐ TRIPLETS ☐ OTHER ☐ SPECIFY

In Multiple Pregnancy specify baby A, B, C, etc. (Use separate form for each baby) ☐

3 **ADMISSION TO LABOUR/ DELIVERY AREA** Time ____ ____ Date _____ In True Labour ☐ Other ☐ Specify In Suspected Labour ☐ For Induction ☐ For Elective C. Section ☐

4 **HIGH RISK FACTORS BEFORE LABOUR**

SCORES (if applicable)
- Present Pregnancy ☐
- Obstetrical History ☐
- Gestational Age ☐

TOTAL SCORE ☐

LIST:– _____

5 **CONSULTATION**

OBSTETRIC: NONE ☐ BEFORE LABOUR ☐ DURING LABOUR ☐ AFTER LABOUR ☐ — TIME CALLED (Hour) ☐☐☐☐

PEDIATRIC: NONE ☐ BEFORE LABOUR ☐ DURING LABOUR ☐ AT DELIVERY ☐ — TIME CALLED (Hour) ☐☐☐☐

6 **INDUCTION OR AUGMENTATION OF LABOUR** INDUCTION No ☐ Yes ☐ AUGMENTATION No ☐ Yes ☐

METHOD OF INDUCTION OR AUGMENTATION ARM Only ☐ Oxytocin Only ☐ ARM and Oxytocin ☐ Other ☐ Specify _____

RIPENING INFUSIONS No ☐ Yes ☐

INDICATIONS FOR INDUCTION ☐ _____

OR AUGMENTATION ☐ _____

7 **FETAL MONITORING** – FETAL HEART

Auscultation or other means	No	Yes	Norm	Abnorm
On Admission				
1st Stage				
2nd Stage				

FETAL BLOOD

FBS No ☐ Yes ☐ No. of Times ☐

Lowest pH ☐☐☐☐

Cord Blood Gases No ☐ Yes ☐

If Yes, UApH ☐☐☐☐

ELECTRONIC MONITORING (Excluding Doppler)

Continuous ☐

Intermittent ☐

TIME FROM ☐☐☐☐ TO ☐☐☐☐

	No	Yes	Ext	Int
FHR				
UP				

8 **TIME SUMMARY**

	Hour	Day	Month	Year
1st Stage Started				
2nd Stage Started				
Baby Delivered				
Placenta Delivered				
Membranes Ruptured				

Meconium No ☐ Yes ☐

	Hours	Minutes
1st Stage		
2nd Stage		
3rd Stage		

Duration of Ruptured Membranes	Days	Hours	Minutes

9 **BABY** Unit Number ☐☐☐☐☐☐☐☐☐☐ Admission No. ☐☐☐☐☐☐☐☐☐☐

RECORD APGAR SCORE ON REVERSE OF WHITE COPY

SEX – Male ☐ Female ☐ Ambiguous ☐ Liveborn ☐ Stillborn ☐

WEIGHT ☐☐☐☐ GMS GESTATIONAL AGE ☐☐ WEEKS

CONGENITAL MALFORMATIONS No ☐ Yes ☐ Specify _____

10 **UMBILICAL CORD:** PROLAPSE ☐ OCCULT ☐ TRUE KNOT ☐ LOOPS OF CORD No ☐ Yes ☐ VESSELS 2 ☐ 3 ☐

SPECIFY NUMBER AND SITE OF LOOPS _____

PLACENTA – Normal ☐ Abnormal ☐ Specify _____

WEIGHT ☐☐☐☐ GMS TO PATHOLOGY ☐ CULTURES ☐ OTHER ☐ _____

CORD BLOOD – VD ☐ RH STUDIES ☐ RESERVE ☐ OTHER ☐ _____

DOCTORS PRESENT AT DELIVERY _____

NURSES PRESENT AT DELIVERY _____

SIGNATURE OF ATTENDING NURSE _____ DATE _____

WHITE COPY—MOTHER'S CHART YELLOW COPY—INFANT'S CHART PINK COPY—PHYSICIAN'S COPY

LABOUR SUMMARY AND DELIVERY RECORD PART 2

11 INDICATIONS FOR OPERATIVE DELIVERY
(Enter in Section 15)

2nd Stage Delay
- Primigravida > 1 hour
- Multigravida > ½ hour

Fetal Distress
- Abnormal FHR
- Meconium
- Acidosis

Cord Prolapse or Presentation
Poor Maternal Effort
Arrest in 2nd Stage
- Transverse
- POP

Failed Trial of Forceps
Disproportion
Excessive Fetal Size
Prolonged Labour

Incoord Uterine Action
Cervical Dystocia
Malpresentation
- Breech
- Face/Brow
- Shoulder, etc.

Unstable Lie
IUGR
APH
- Abruptio
- Plac Praevia
- Undiag Haem.

Cardiac Disease
Pre-Eclampsia/Eclampsia
Hypertension

Diabetes
Renal Disease
Immunization
- RH, etc.

Multiple Pregnancy
Elderly Primigravida
Congenital Malforms.
Known Fetal Anomaly
Prev. Uterine Surgery
- C Section (Repeat)
- Myomectomy
- Hysterotomy

Prev. Surgery of Lower Genital Tract
Infections (Herpes, Chorioamnionitis, etc.
Other

THIS RECORD FOR BABY ☐ (A, B, C etc)

12 ANALGESIA DURING LABOUR

NARCOTIC No ☐ Yes ☐

Epidural Catheter ☐ Nitrous Oxide ☐

Other ☐ Specify _____

MEDICATION	IV/IM	DOSE	TIME	DATE

13 ANAESTHESIA DURING DELIVERY Nitrous Oxide ☐ General Anaesthetic ☐ Spinal ☐ Epidural ☐ Pudendal ☐ Local Perineal ☐
Other ☐ Specify

14 HIGH RISK FACTORS DURING LABOUR AND DELIVERY

Meconium ☐
FHR Abnormal 1st Stage ☐
FHR Abnormal 2nd Stage ☐

Cord Complications ☐
Intrapartum Hypertension ☐
Intrapartum Eclampsia ☐
Intrapartum Haemorrhage ☐
Intrapartum Infection ☐

Multiple Pregnancy ☐
Malpresentation ☐
Prolonged ROM ☐
Prolonged Labour ☐
Feto Pelvic Disproportion ☐

Prolonged 2nd Stage ☐
Fetal pH < 7.25 ☐
UApH < 7.20 ☐
Other ☐ _____
None ☐

15 DELIVERY

PRESENTATION AND POSITION – During Labour _____ At Delivery _____

Type	Spontaneous Vaginal ☐	Ventouse Extraction ☐	Shoulder Dystocia ☐	
Forceps	Low ☐	Low Mid ☐	Mid ☐	High ☐
	Traction Mild to Mod ☐	Traction Mod to Severe ☐		
	Trial Successful ☐	Trial Failed ☐		
Rotation	Manual & Spontaneous Delivery ☐	Forceps Rotation & Spontaneous Delivery ☐		
	Manual & Forceps Delivery ☐	Forceps Rotation & Forceps Delivery ☐		
Breech	Easy ☐	Moderately Difficult ☐	Difficult ☐	
	Internal Version ☐	Breech Extraction ☐	Forceps to after coming head ☐	
Caesarean Section	Pfannenstiel Incision ☐	Vertical Midline Incision ☐	Paramedian Incision ☐	Tubal ligation ☐
	Low Segment Transverse Incision ☐	Low Segment Vertical Incision ☐	Classical ☐	Inverted-T ☐

OTHER TYPE OF DELIVERY ☐ Specify _____

MANUAL REMOVAL OF PLACENTA No ☐ Yes ☐

INDICATIONS FOR OPERATIVE DELIVERY (To be completed for all Forceps, Rotations, Breech Extractions, Ventouse & Caesarean Sect's.)

List in Order of Priority
1. _____
2. _____
3. _____
4. _____

16 BLOOD LOSS Minimal ☐ Moderate ☐ Excessive ☐

ESTIMATED ☐☐☐☐ CC's OR MEASURED ☐☐☐☐ CC's

PERINEUM Intact ☐ Tear 1 2 3 4 (DEGREE: Definitions on Reverse)

EPISIOTOMY None ☐ Midline ☐ Medio-lateral ☐
Extended into Vagina ☐ Extended in Rectum ☐

Additional Lacerations (Labial, Vaginal, Cervical, etc.) No ☐ Yes ☐

If YES specify _____ Sutured By _____

Suture Pack left in No ☐ Yes ☐ Catherized No ☐ Yes ☐ Catheter left in: No ☐ Yes ☐

Additional Comments and Operative Findings: _____

SIGNATURE OF ATTENDING PHYSICIAN _____ DATE _____

NEWBORN RECORD - PART 1

1. HOSPITAL OF BIRTH:
DOCTOR: CASE NO.
E.D.C.
FATHERS NAME RACIAL ORIGIN
MOTHERS MAIDEN NAME UNIT NUMBER RACIAL ORIGIN

2. **FETAL RISK ASSESSMENT:** SCORES
NO PRENATAL RECORD ☐ PRENATAL RISK: None ☐ Yes ☐ _____
NO LABOUR/DELIVERY RECORD ☐ LABOUR/DELIVERY RISK: None ☐ Yes ☐ _____

3. **MATERNAL HISTORY SUMMARY:** AGE | BLOOD GP. | RH POS. | RH NEG.
Number of previous pregnancies _____
LIVE BIRTHS: Term. _____ Pre-term _____ STILLBIRTHS: Term _____ Pre-term _____ ABORTIONS: Therapeutic _____ Spontaneous _____ NO. OF CHILDREN Living _____ At Home _____
COMMENTS: _____

4. **DELIVERY:** DURATION MEMBRANE RUPTURE ____ Hrs. MECONIUM STAINING: No ☐ Yes ☐ Method of Delivery _____
DATE OF BIRTH _____ Time _____ Hrs. SEX ____ CORD BLOOD SPECIMEN: VDS ☐ Rh ☐ Reserve ☐
COMMENTS: _____

5. **APGAR SCORE**

	0	1	2	1 Min.	5 Min.	10 Min.
Heart Rate	Absent	Under 100	Above 100			
Resp. Effort	Absent	Slow Irregular	Good Crying			
Muscle Tone	Limp	Some flex of Extrem.	Active Motion			
Reflex Irritability	None	Grimace	Crying			
Colour	Blue Pale	Blue Extrem.	All Pink			
TOTAL						

6. **RESUSCITATION:**
No ☐ Yes ☐ By Whom:

Method:	Age (min)	Duration (min)
☐ O_2 Flow		
☐ O_2 Mask & Pressure		
☐ O_2 Endotracheal Tube		
☐ Other		

Comments: _____

7. **EYE PROPHYLAXIS:**
A_gNO_3 ☐ Other ☐ _____
Specify: _____
Signature: _____

8. **INFANT IDENTIFIED BY:**
_____

9. **DELIVERY ROOM ASSESSMENT:**
Colour: ☐ Pink ☐ Plethoric ☐ Central Cyanosis ☐ Pale **Skin:** ☐ Vernix ☐ Desquamation ☐ Meconium ☐ Edema ☐ Petechiae
Activity: ☐ Active ☐ Lethargic **Tone:** ☐ Good ☐ Fair ☐ Limp/Floppy **CVS:** Apex Left ☐ Yes ☐ No
Respiratory System: ☐ Normal ☐ Grunting ☐ Retraction ☐ Shallow Respirations ☐ Poor Air Entry ☐ Gasping
Heart Sounds: ☐ Normal ☐ Abnormal **Umbilical Cord:** ☐ Normal ☐ Thick ☐ Thin ☐ Meconium Stained **Vessels:** ☐ 2 ☐ 3
Abdomen: ☐ Normal ☐ Scaphoid ☐ Masses _____
Genitalia: ☐ Female ☐ Male ☐ Ambiguous **Anus:** ☐ Patent ☐ Imperforate
Birth Trauma: ☐ No ☐ Yes _____
Congenital Anomalies: ☐ No ☐ Yes _____
Immediately before Transfer to Nursery: IN O_2: ☐ No ☐ Yes Axillary Temp. ____ °C Resp. Rate ____ Heart Rate ____ Voided: ☐ Yes ☐ No
Passed Meconium: ☐ Yes ☐ No EXAMINER'S SIGNATURE: _____

10. **TRANSFER TO:** Transitional Nursery ☐ Regular Nursery ☐ Intensive Care Nursery ☐ Other ☐
Time of Admission to Nursery: _____ Hours Date: _____

11. **EVALUATION OF DEVELOPMENT:** (Growth Curves on Reverse)
Birthweight _____ (Gms) _____ % ILE
Length _____ (Cms) _____ % ILE
Head Circ. _____ (Cms) _____ % ILE

THIS INFANT CLASSIFIED AS:
Small for Gestational Age SGA ☐
Appropriate for Gestational Age AGA ☐
Large for Gestational Age LGA ☐

GESTATION AGE:
By Dates _____ Wks. By Exam _____ Wks.
Method _____

Pre Term (< 37 Completed Weeks – i.e. < 259 Days) ☐
Term (37 to < 42 Completed Weeks – 254 to 293 Days) ☐
Post Term (42 Completed Weeks or More – 294 Days or More) ☐

WHITE COPY—INFANT'S CHART YELLOW COPY—MOTHER'S CHART PINK COPY—PHYSICIAN'S COPY

NEWBORN RECORD - PART 2

12. PROCEDURES:

SKIN CARE: No ☐ Yes ☐ _____

CORD CARE: No ☐ Yes ☐ _____

VIT. K_1 ☐

13. THIS INFANT TRANSFERRED TO ANOTHER HOSPITAL:

No ☐ Yes ☐ SPECIFY _____

14. PHYSICAL EXAMINATION: A. Admission B. Discharge

A. Date: _____ B. Date: _____ Axillary Temp. _____ °C Resp. Rate _____ /min. Apex Rate _____ /min.

A	B						
1	☐	☐	Appearance	7	☐	☐	Reflexes
2	☐	☐	Abdomen	8	☐	☐	Eyes
3	☐	☐	Femoral Pulses	9	☐	☐	E.N.T.
4	☐	☐	Heart	10	☐	☐	Head/Neck
5	☐	☐	Lungs	11	☐	☐	Extremities
6	☐	☐	Tone	12	☐	☐	Hips
13	☐	☐	Skin				
14	☐	☐	Genitals				
15	☐	☐	Anus				
16	☐	☐	Trunk/Spine				
17	☐	☐	Cry				
18	☐	☐	Cong. Anom.				

COMMENTS: *(Use Ref. No's.)*

(CODE: ☑ = Normal ○ = Abnormality Present *(Describe)*) *Signature: A.* _____ */B.* _____

15. PROBLEM LIST:

Date Commenced	PROBLEM	Resolved at Time of Discharge Yes / No / Unknown

16. ANY FURTHER PERTINENT INFORMATION:

17. POSSIBLE FOLLOW-UP PROBLEMS:

(CODE: ☐ = Problem Present *(describe)*)

COMMENTS: *(Use Ref. No.)*

A. Socio-Economic
1 ☐ Drug Habituation
2 ☐ Language Problem
3 ☐ Malnutrition
Home Situation:
4 ☐ Single Parent
5 ☐ Working Mother
6 ☐ Poverty
7 ☐ Other Socio-Economic

B. Emotional
8 ☐ Maternal Rejection
9 ☐ Paternal Rejection
10 ☐ Prolonged Maternal/ Infant Separation
11 ☐ Maternal Immaturity
12 ☐ Maternal Anxiety State
13 ☐ Maternal Psychosis
14 ☐ Post Partum Depression
15 ☐ Other Emotional

C. Infant
16 ☐ Unresolved Medical Problem
17 ☐ Potential Medical Problem
18 ☐ Other Infant Problem

D. Sibling with Chronic Medical Problem
19 ☐ "SIDS"
20 ☐ Other Chronic Medical Problem

18. FURTHER PROCEDURES: *(See also Section 12)*

METABOLIC SCREENING TESTS: No ☐ Yes ☐ Specify _____ CORD VDS TEST: Neg. ☐ Pos. ☐ URINALYSIS: Neg. ☐ Pos. ☐

CIRCUMCISION: No ☐ Yes ☐ Date: _____ Method: _____

19. CONSULTATIONS: With:

1. _____
2. _____

20. NEONATAL DEATH: ☐

Date: _____ Time: _____ Hrs.

AUTOPSY: Planned ☐ Requested ☐ Refused ☐

Comments: _____

21. CONDITION ON DISCHARGE:

DISCHARGED ALIVE ☐ Date: _____ Weight _____ GMS

FINAL DIAGNOSIS: _____

DISCHARGED WITH: Mother ☐ Other ☐

Referral to Public Health Nurse: _____

Referral to Dept. of Human Resources: _____

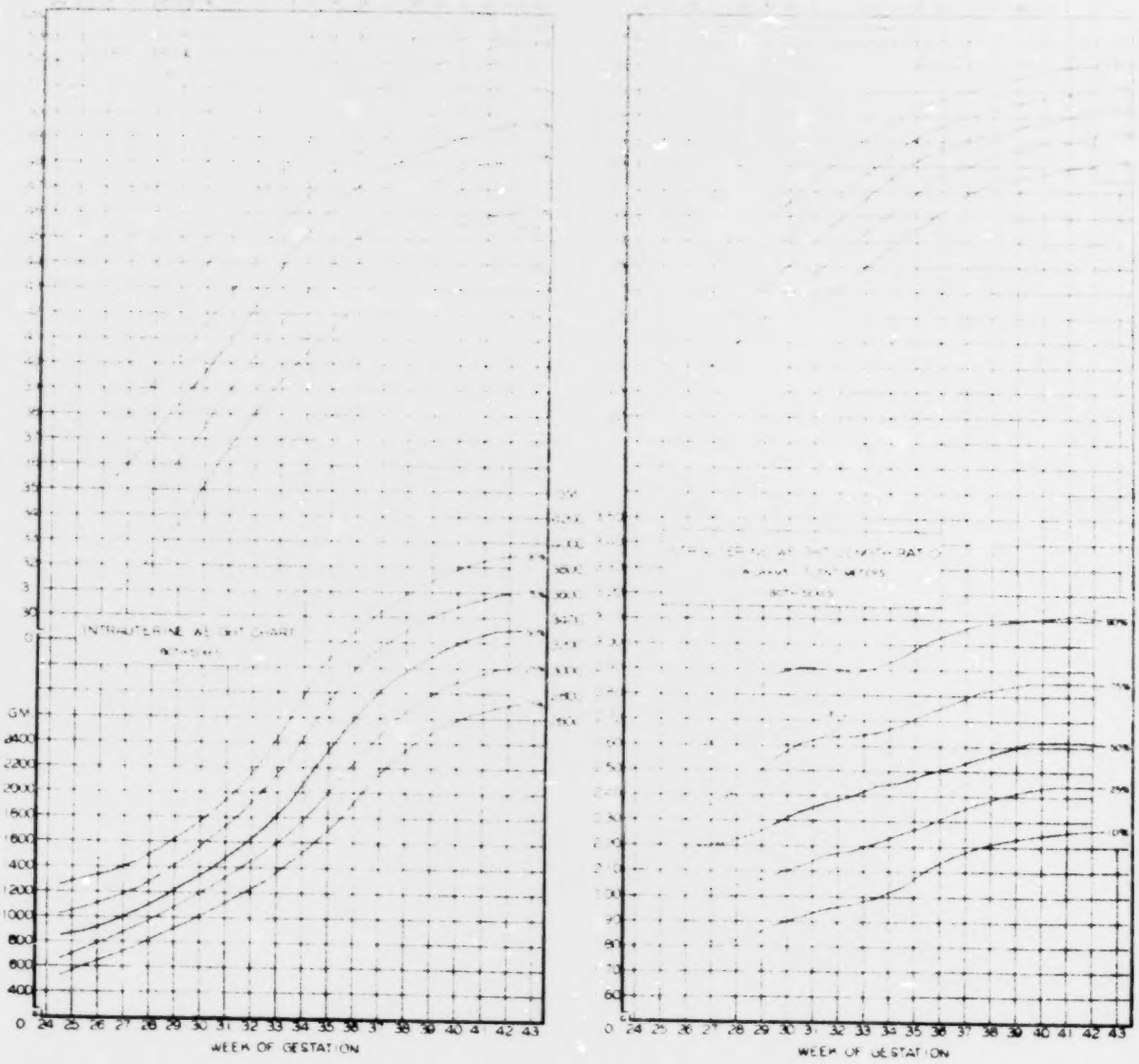
Breast Fed ☐ OR Specify Formula: _____

Vitamins ☐ Fluoride ☐ Iron ☐ DISCHARGE MEDICATIONS: *(Specify & state Dose)*

22. DISCHARGED TO THE CARE OF: _____

ATTENDING PHYSICIAN: _____ M.D.

INTRAUTERINE GROWTH CHART



LUBCHENCO L O HANSMAN C and BOYD E Pediatrics 37 403 1966

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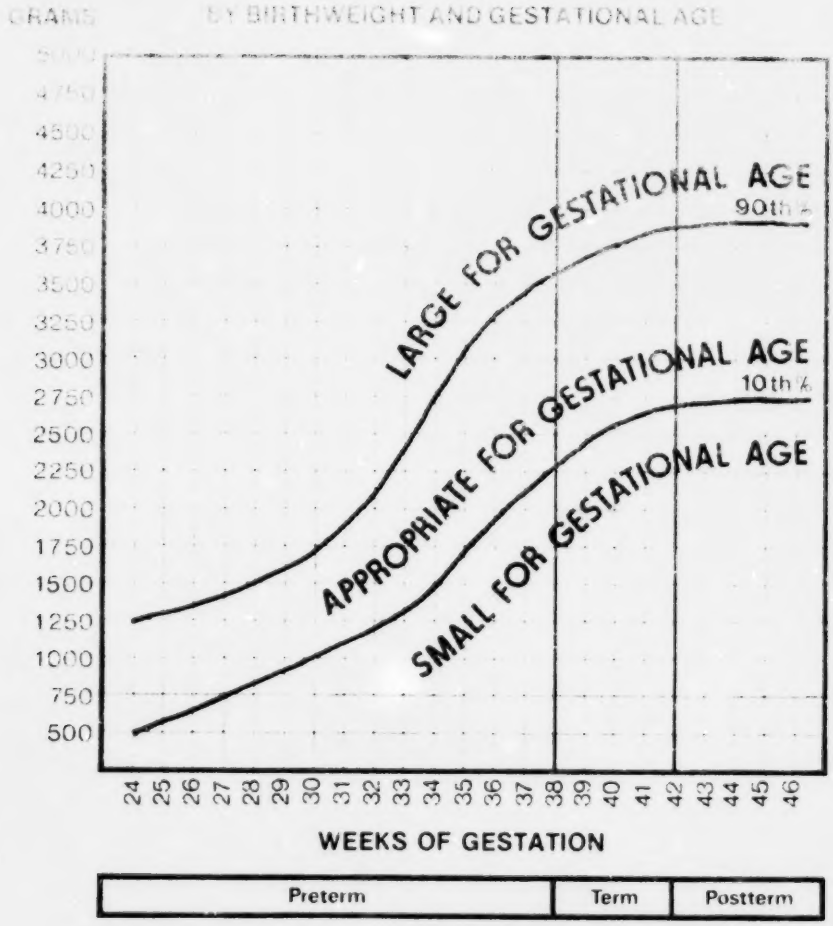
CLASSIFICATION OF NEWBORNS
BY BIRTHWEIGHT AND GESTATIONAL AGE



BATTAGLIA, F.C., LUBCHENCO, L.O., Pediatrics, 71:161, 1967

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ALBERTA

ALBERTA PRENATAL RECORD

This record is prepared and revised by the Perinatal Committee of the Alberta Medical Association, printed by the Department of Hospitals and Medical Care and distributed to the hospitals to be available to their doctors.

2 DOCTOR'S COPY
3 HOSPITAL COPY: MOTHER'S CHART
4 HOSPITAL COPY: NEWBORN CHART

A GUIDE TO PREGNANCY RISK

PREGNANCY AT HIGH RISK (10 times the average risk)

Pregnancies which are so complicated that the fetus and/or mother are obviously in danger. If at all possible, these patients should be transferred to a regional perinatal center for intensive care and delivery. Clearly, there are patients who deserve to be placed in this risk category who cannot be transferred safely or in time to benefit the fetus or mother.

Small for dates
Antepartum bleeding > 20 weeks
Twins (large for dates)
Polyhydramnios (Single fetus)
Insulin diabetes
Immaturity (31 weeks or less, > 20 weeks)

PREGNANCY AT RISK

The fetus and/or mother are definitely at risk and consultation should be obtained with a specialist obstetrician in your area. In addition, consultation with an appropriate internist may be necessary. These patients may be managed by continuing collaborative care and deliveries in an obstetrical unit with intermediate level nursing facilities OR they may be returned to the care of the referring physician with a suggested plan of management for the remainder of the pregnancy.

Gestational diabetes
Uncertain dates
Rh. sensitization
Smoking, alcohol, drugs
Rubella
Fever/amnionitis
Abnormal presentation

> 42 weeks (postmaturity)
Preclampsia B.P. > 140/90, proteinuria
Prolonged rupture of membranes
Incompetent cervix
Chronic maternal conditions
(hypertension, heart, renal)

PREGNANCY AT LEAST RISK

Certain dates
No significant medical disease
No significant genetic history
No past pregnancy complications
No previous I.U.G.R. or perinatal mortality

SOME SUGGESTIONS AND INVESTIGATIONS

- Telephone consultation
- Sonar
- Symphysial fundal measurement
- Uninary estriols
- Fetal biophysical profile
- Fetal movement graphs
- Glucose Tolerance Test
- Non stress tests
- Fetal stress tests
- Rh. negative checks at 28, 32, 36 weeks
- X-ray
- Nitrazine speculum examination
- Cultures
- ?
- ?
- ?

PART I

PRENATAL RECORD

DOCTOR'S NAME

NAME M | S

MAIDEN NAME W | D

ADDRESS

DATE OF FIRST VISIT | TELEPHONE NUMBER

DATE OF BIRTH MOTHER	AGE	OCCUPATION	RELIGION	FATHER OF CHILD	DATE OF BIRTH FATHER	AGE	OCCUPATION	RELIGION

ESTIMATION OF GESTATIONAL AGE

L.M.P.

SURE ☐ NOT SURE ☐

MENSTRUAL HISTORY

CYCLE DURATION

BIRTH CONTROL (SPECIFY)

DATE DISCONTINUED

BLEEDING SINCE L.N.M.P.

NO ☐ YES ☐ SPECIFY

INVESTIGATIONS TO CONFIRM DATES

	IN WEEKS		
UTERINE SIZE AT FIRST VISIT			EXPECTED
			ACTUAL

E.D.C.

Topics for Discussion and Advice

Family Obs. History

Genetic Counsell:

Prenatal Course and Classes

Nutrition (Vegetarian)

Supplements

Weight Control

Exercise

Smoking

Alcohol

Medications

Rest

Coitus

Bowels

Baths

Clothes

Books

OBSTETRICAL HISTORY (INCLUDING ABORTIONS)

DATE	PLACE	DURATION PREG	DURATION LAB	METH. DEL.	*MATERNAL COMPLICATIONS PREG./IN LAB./POST P.	NEONATAL COMPLIC.	SEX	WEIGHT	PRES HEALTH

*N.B. POTENTIALLY RECURRENT COMPLICATIONS SUCH AS A.P.H., P.P.H., HYPERTENSION, SMALL FOR DATES, LARGE FOR DATES, AND CESAREAN SECTION. **WHEN IN DOUBT WRITE TO PREVIOUS HOSPITAL.**

PRESENT PREGNANCY

	NO	YES
EXCESS VOMITING	☐	☐
ALCOHOL	☐	☐
SMOKING	☐	☐
DRUG ABUSE	☐	☐

CURRENT MEDICATIONS

FAMILY HISTORY IF YES, SPECIFY

	NO	YES
DIABETES	☐	☐
TWINS	☐	☐
MALFORMATIONS	☐	☐
HEREDITARY DISEASE	☐	☐
OTHER	☐	☐

PAST MEDICAL HISTORY IF YES, SPECIFY

	NO	YES
RENAL	☐	☐
CARDIAC	☐	☐
INFECTIONS	☐	☐
INFERTILITY	☐	☐
ALLERGIES	☐	☐
OPERATIONS	☐	☐
TRANSFUSIONS	☐	☐
OTHER	☐	☐

EXAMINATION: DATE

GENERAL CONDITION

HEAD & NECK

BREASTS

HEART

LUNGS

ABDOMEN

EXTREMITIES

BIMANUAL VAGINAL

SPECULUM

DOCTOR'S COPY

PART II

PRENATAL RECORD

NAME

AGE	GRAV	PARA

INITIAL INVESTIGATIONS

HEIGHT	PRE PREG. WEIGHT	ABO	Rh	Hgb	SEROLOGY	RUBELLA TITRE	PAPP SMEAR		DATE OF QUICKENING	L N M P	E D C

DATE	WGT.	URINE PRO / SUG	B.P.	GEST. AGE	FUNDUS (cm)	PRES.	F.H.	REMARKS, MEDICATIONS, ETC.	NEXT VISIT

Topics for Discussion and Advice

Hosp. Adm. Procedures

Arrival at Hospital

Anaes. & Analg.

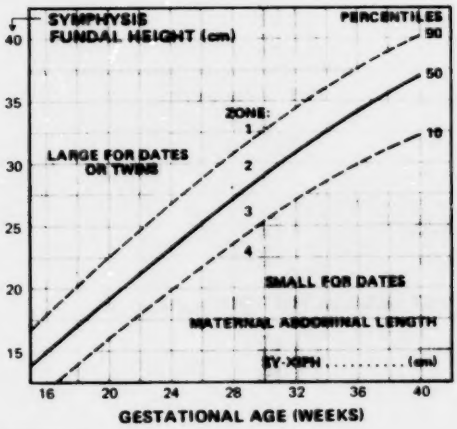
Labor Stages

Breast Care

Breast Feed:

Baby Care

RISK FACTORS



HIGH RISK INVESTIGATIONS

DATE					

NOTATIONS FOR DELIVERY/PUERPERIUM

PRENATAL CLASSES ☐

BREAST FEEDING ☐

BABY'S DOCTOR _____

DOCTOR'S SIGNATURE _____

TO TEAR OUT CARBON PAPER [illegible] PLEASE PRESS HARD.

SIDE ONE

PRENATAL FORM

HOSPITAL NO

HOSPITAL

CASE NO

DOCTOR

NAME

M | S

MAIDEN NAME

W | D

ADDRESS

TELEPHONE NUMBER	A H C I C NUMBER	SOCIAL INSURANCE NO	DATE OF BIRTH	AGE	OCCUPATION	RELIGION
FATHER OF CHILD		SOCIAL INSURANCE NO	DATE OF BIRTH	AGE	OCCUPATION	RELIGION

OBSTETRICAL HISTORY INCLUDING ABORTIONS

DATE	PLACE OF CONFINEMENT	DUR OF PREG IN WEEKS	HOURS OF LABOUR	TYPE OF DELIVERY	COMPLICATIONS	CHILD		
						SEX	BIRTH WT	PRESENT HEALTH

MENSTRUAL HISTORY MENARCHE / DURATION / CYCLE / L M P

SURE ☐ NOT SURE ☐

E D C

BIRTH CONTROL (SPECIFY) NONE ☐

DATE OF DISCONTINUANCE

HISTORY OF PRESENT PREGNANCY

NAUSEA
BREASTS
BLEEDING
OTHER

EXAMINATION DATE

GENERAL CONDITION

HEAD AND NECK

LYMPH NODES

HEART

LUNGS

BREASTS

ABDOMEN

SPINE

VARICES

BIMANUAL PELVIC EXAM.

SPECULUM INSPECTION

RECTAL

PAP SMEAR

FAMILY HISTORY

DIABETES

CARDIAC

HYPERTENSION

TUBERCULOSIS

TWINS

MALFORMATIONS

PERSONAL HISTORY

PAST ILLNESS

- RENAL
- CARDIAC
- INFECTIONS
- RUBELLA
- VENEREAL
- ALLERGIES

OPERATIONS

TRANSFUSIONS

1. HOSPITAL COPY: MOTHER'S CHART—White
2. HOSPITAL COPY: NEWBORN CHART—Pink
3. DOCTOR'S COPY—Yellow

FROM:
UNIVERSITY OF ALBERTA, EDMONTON, ALTA

NAME

AGE	GRAV	PARA	L.M.P.	E.D.C.	DATE OF QUICKENING

BLOOD			PREVIOUS Rh GLOBULIN	FATHER OF CHILD Rh GENOTYPE	RUBELLA ANTIBODY PRESENT ☐ NOT DETECTABLE ☐	OTHER INVESTIGATIONS (Rh Titre, etc)	DATE ▶ FINDINGS ▶		
STS	ABO GROUP	Rh							

HEIGHT	PRE PREG WEIGHT	CYTOLOGY	RISK FACTORS - TO BE ANTICIPATED IN THIS	PREGNANCY DELIVERY NEWBORN
CHEST X-RAY				

DATE	DUR OF PREG IN WEEKS	FUNDUS IN WEEKS	WT	EDEMA (SITE)	URINE ALB	URINE SUG	B P	Hb	PRESENT AND POSITION	F H RATE	ENGAGEMENT	MEDICATIONS REMARKS	RETURN ON

If albumen is present, it is assumed that catheter or midstream specimen has been tested

CLINICAL ASSESSMENT OF PELVIS	X-RAY REPORTS	DATE

PRENATAL CLASSES	ANESTHESIA PREFERRED	PEDIATRICIAN	BREAST FEEDING

SIGNED _____ M.D.

ALBERTA PRENATAL RECORD - Instructions

About fifty percent of perinatal deaths occur before the patient is admitted to hospital and it is likely that morbidity from premature birth and inadequate fetal growth can be reduced by more vigilant prenatal care.

This record has been prepared with the assistance of a widely representative group of physicians in Alberta in order to bring the recent advances in perinatal care into routine use througout the Province and it is also hoped that the revised record will produce better carbon copies.

The two primary emphases at the first prenatal visit should be:

1. ESTABLISHMENT OF E.D.C. — To determine whether the patient is pregnant and, if so, by how many weeks. For this reason the data establishing the E.D.C. are listed first on the record and an attempt is made to arrange the pertinent information on the form in such a way that there is a logical sequence of thought and examination from the stated L.M.N.P. in the top left hand corner of this section to the final estimation of this important date in the bottom right hand corner of this section.

Menstrual Cycle	- Cycle length prior to L.M.P. (greater than 30 days) refers to menstrual pattern within three months of L.M.P.
Birth Control	- Oral contraceptives discontinued with one or two cycles before L.M.P. - I.U.C.D. in situ may result in abortion or premature labor but may be removed during pregnancy. Prompt referral is desirable.
Bleeding	- Bleeding since L.M.P. refers to vaginal bleeding in early pregnancy. This can be associated with a molar pregnancy which, if suspected, would suggest estimation of urinary HCG and sonar examination.
Uncertain Dates	- Uncertain dates or lack of correlation between the period of gestation and the actual size of the uterus can lead to problems later in the pregnancy. Pelvic examination should include bi-manual palpation of the uterus.
Investigations to Confirm Dates	- Where dates are uncertain every effort should be made to establish gestational age accurately by sonar examination before the twentieth week of pregnancy (or uterine height of 20 cm.) - The dates and results of pregnancy tests should be listed in this space. - The Perinatal Committee has tried to avoid listing tests and investigations on this record in case this should be construed to mean that the tests were essential in all patients for good care.

2. ASSESSMENT OF PATIENT'S HISTORIES AND GENERAL HEALTH TO FORECAST THE OUTCOME OF THIS PREGNANCY — There is little change in this section of the prenatal record from the traditional approach to this assessment.

Obstetric History	- Only the most common recurrent complications are listed on the record but emphasis is placed on writing to the hospital for the case history if there is any doubt about previous adverse obstetric history or illness of the newborn.
Present Pregnancy	- The physiological changes in early pregnancy (nausea, breast changes, urinary frequency, etc.) have been omitted in this section but excessive vomiting requiring treatment should be noted and also smoking, alcohol and the use of non-medical drugs (eg. caffeine) as these lifestyles are known to affect the fetus adversely and are of importance in the care of the newborn. Every effort should be made to encourage the pregnant patient to change these three lifestyles because of the risk to the fetus.
Current Medications	- Any current prescription medication (steroids, insulin, tranquilizers) should be listed.
Family History	- This section has been shortened because a rather general question will usually illicit the pertinent information if the physician suspects there is history of which he should be aware. A history of seizures in the family or birth-damaged siblings, premature births, etc., would encourage a more detailed history.
Past Medical History	- This is not a complete list for the sake of brevity. For example, tuberculosis, veneral disease, and herpes, come collectively under "infections" but should be specified individually.

Physical Examination	- The date of this examination should be specified even if it is the same as the date of first visit. Any abnormal findings or pelvic abnormalities should be listed.

Any risk factors identified on this first page should be noted in the RISK FACTOR section on the back of the form and, where necessary, the follow-up indicated e.g. "Dates uncertain" - Sonography (on such-and-such dates).

Repetition Age Parity	The back page of the record (Part II) has the patient's name, age, gravida and parity repeated at the top of the page. The usual ages considered at risk are less than 18 years and over 38 years but this depends on multiple factors. The primigravida over 30 years can cause concern. The para 4+ can prove a high risk patient.
Initial Investigations	The initial investigations are listed at the top of the back page so that they are visible at every visit. If the reports on any of these investigations show deviations from the normal, e.g. Rh. antibodies, the follow-up would be in the high-risk boxes at the bottom of the page where the dates of follow-up tests would be planned and arrangements made regarding the father's genotype. The initial investigations should be repeated at every pregnancy.
Hgb.	The usual column for hemoglobin is omitted because the same recording procedure can be followed as for high risk deviations from the normal: a Hgb. of $\angle$ 10g. would be checked off as a risk factor and listed in the high risk investigation boxes for treatment and further checks.
Height & Weight	Height and weight are listed together but while women under 5 feet (152 cm.) and under 100 lbs. in weight (45 kgm.) are considered to be at risk, there is still a relevancy in family size (e.g. some immigrants are small people). It is the regular weight gain and the growth of the fetus that will be pertinent in the pregnancy and the weight column is directly below the pre-pregnancy weight for the purpose of watching weight gain. Obese women are at risk.
Date	The first four columns are usually completed by the office nurse.
Urinalysis	If the patient does not bring a specimen, the specimen should be obtained because this check is essential especially in the presence of even a slight increase in blood pressure. More than a trace of proteinuria warrants hospitalization. Glycosuria in pregnancy should always suggest the presence of gestational diabetes until proved otherwise. Gestational diabetes requires prompt consultation.
Blood Pressure	An increase in blood pressure (diastolic pressure increase of 20 mm. or a diastolic pressure of 90 mm.) requires careful assessment and possible hospitalization. Management of hypertension and/or edema in pregnancy with diuretic drugs on an ambulatory basis has now been proved ineffective because, while relieving the patient's symptoms, this treatment does not improve the basic placental dysfunction which can result in a small-for-dates or dead fetus.
Gestational Age	Once the E.D.C. has been established the weeks of gestation of the pregnancy by dates should be entered on this column.
Fundus (cms.)	Regardless of the gestational age by dates the height of the fundus should be carefully measured in centimetres at each prenatal visit, using a tape measure. The patient should lie flat with one pillow. The fundus is identified, without applying pressure to the abdomen, and the upper edge of the fundus is marked on the abdomen using a pen. The tape measure is then used to record the distance between the upper border of the symphysis pubis and the ink mark on the abdomen. This distance should be entered in the "Fundus" column. Serial measurements of the size and rate of growth of the uterus are now considered so important in pregnancy that they warrant recording on the graph supplied in the bottom right hand corner of page two. This graph correlates weeks of gestation with the symphysis-fundal measurement. The expected recordings on this graph would be in zones 2 or 3. The dotted lines indicate the 10th and 90th percentiles and recordings above the 90th percentile at two successive visits would warrant a sonar scan (zone 1: twins, large infant, hydramnios, gestational age in doubt). On the other hand, if the uterus is small-for-dates (zone 4) or fails to increase in size between two visits there is a risk of feto-placental dysfunction and fetal growth retardation. This observation at two successive visits would warrant sonar examination and serial tests of feto-placental function after 28 weeks. Where there is inappropriate uterine growth for the gestational age (zone 1 or zone 4) there may also be less than normal fetal activity (less than ten movements during 12 hours on two successive days) and the patient should be asked to report this immediately.

Where utrauterine growth retardation is suspected serial sonar examination should be done (20, 26, 30, 34 and 38 weeks). The diameter of the fetal trunk should be estimated as well as the biparietal diameter as the ratio of this diameter to the fetal trunk diameter provides the most information in these cases.

The bottom right hand corner of the ultrasound chart requires the maternal abdominal length from the symphysis-pubis to the xiphoid. Women with short abdominal lengths (37 cm. or less) may have measurements recorded in the lower part of zone 3 or may even fall into zone 4 and give the appearance of being small-for-dates.

Presentation	This column is for use after 34 weeks in case of a malpresentation. The column on "Engagement" was not considered essential and has been omitted.
F.H.R.	This column is narrow and should only require a checkmark. Most doctors do not count the fetal heart beats in normal antenatal patients.
Topics for Discussion	These are marginal reminder notes: the prenatal suggestions on the front page and the labor and delivery factors on the back page.
HIGH RISK FACTORS (Fly sheet in front)	No attempt has been made to include complete lists because these lists are long and space-consuming. A longer check list could be supplied from the Perinatal office on request.

This half page with the risk factors on the back for constant reminder, may be used to conceal the name and maintain the confidentiality of records when they are in use during the prenatal period, or it may be detached if the doctor so wishes.

Saskatchewan Health

Hospital Services Plan

Prenatal Record

Health 19 42 5 79

Name	Age	Date of Birth
Address		Telephone No.
Father of Child		Date of First Visit
Family Physician	Obstetrician	Pediatrician

Obstetrical History Including Abortions:

Date	Place of Confinement	Dur. Preg. Wks	Hours of Labour	Type of Delivery	Complications Mother and/or Infant	Child Sex	Child Birth Wt.	Child Pres. Health

Past illnesses:	No	Yes	Specify
Renal			
Cardiac			
Infections			
Rubella			
Venereal			
Allergies			
Operations			
Transfusions			
Other			

Family history:	No	Yes	Specify
Diabetes			
Cardiac			
Hypertension			
Tuberculosis			
Twins			
Malformations			
Mental Retardation			
Other			

Menstrual history:

Cycle _____ Duration _____

L.M.P. ____ Normal Abnormal

Method of contraception:

Date of Discontinuance

Pre-Preg. Weight	Height

History of present pregnancy: Specify

Nausea, Vomiting	No	Yes	
Bleeding	No	Yes	Date
Fever	No	Yes	Date
Radiation	No	Yes	Date
Smoking	No	Yes	Amount
Drug Use	No	Yes	Identify
Nutrition	Poor	Good	

Current medications

Examination Date _____

General Condition:

Head & Neck:

Lymph Nodes:

Heart:

Lungs:

Breasts:

Abdomen:

Spine:

Limbs:

Pelvic Examination:

Fetal Risk Scoring "A" Baseline Data (Maximum Score is 3)

Age 35 +	1	☐
40 +	2	☐
Para 0	1	☐
6 +	2	☐
Interval less than 2 years	1	☐
Obesity 200 lb. +	1	☐
Diabetes - Mild, Moderate	2	☐
Severe	3	☐
Chronic Renal Disease	1	☐
with Diminished Renal Function	3	☐
Pre-Existing Hypertension		
140 + /90 +	1	☐
160 + /110 +	2	☐
Rh iso - Immunized Mother	2	☐
Pos. History of Erythroblastosis	3	☐

Total Score Part "A" ☐

Previous Obstetrical History

Abortion		☐
Stillbirth		☐
Neonatal Death		☐
Surviving Premature Infant		☐
Antepartum Hemorrhage		☐
Toxemia		☐
Mid-Forceps Delivery		☐
Cesarian Section		☐
Major Congenital Anomaly		☐
Baby 10 lbs. +		☐
One Instance of Above	1	☐
Two or More Instances of Above	2	☐

Doctor's Chart

Full Term Deliveries	Prematures	Abortions 500 grams or less	Live Births: Surviving 7 days	Live Births: Dying before 7 days	Grav	E.D.C	Date of Quickening

V.D.R.L.	ABO Group	RH	Father of Child RH Genotype	Rubella Titre	Pap Smear	Notations for Delivery

Fetal Risk Scoring "B" Present Pregnancy (Maximum Score is 3)

e.g. Hydramnios 3

Bleeding, before 20 weeks	
Alone	1
With Pain	2
Bleeding, after 20 weeks	
Ceased	1
Continues	2
With Pain	3
With Hypotension	3
Spontaneous Premature	
Rupture of Membranes	1
Latent Period 24 hr +	2
Anemia 8 to 10 gms	1
Less than 8 gms	2
No Prenatal Care	2
1 to 3 Prenatal Visits	1

Toxemia Mild - Moderate	1
Severe	3
Hydramnios (Single Fetus)	3
Multiple Pregnancy	2
Abnormal Glucose Tolerance	1
Decreasing Insulin Requirement	3
Maternal Diabetic Acidosis	3
Maternal Pyrexia	1
Pyrexia + FHR Greater Than 160	2
RH Negative	
With Antibody Titre	2
With Amniotic Fluid Liley Zone III	3

C Gestational Age (At time of scoring)

28 Wks. or Under	4
29 - 32 Wks	3
33 - 35 Wks	2
36-37 Wks	1
38 - 41 Wks	0
42 Wks	1
43 Wks. or More	2

Other Investigations

Date	Type	Findings

Prenatal Classes Yes No

Father For Case Room Yes No

Fetal Risk Score (Maximum is 10)

A. Baseline Data [ ] + B + C = Total Score

Evaluation Summary
Score 0 to 2 Low Risk
Score 3 to 6 Moderate Risk
Score >6 High Risk

Date	Dur. of Preg. in Weeks	Fund. in Weeks	Present # and Position	F.H. Rate	Engagement	B.P.	WT	Edema	Urine Alb	Urine Sug	H.B.	Risk Score	Medications and Remarks	Return On

PROVINCE OF MANITOBA **OBSTETRICAL RECORD**

DATE
WARD
FULL NAME
YEAR OF BIRTH
HOSPITAL NUMBER
PHYSICIAN

NAME	ADDRESS	PHONE
DOCTOR	HOSPITAL	INSURANCE-M.H.S.C.

AGE MENSES PILL L.N.M.P. E.D.C.

☐ 37 YEARS OR GREATER AMNIOCENTESIS ☐ DONE ☐ NOT DONE ☐ REFUSED

OBSTETRICAL **GRAV.** **PARA** **ALIVE**

PREMATURE OR <2500 gm _____ { ALIVE ☐ DEAD ☐ STILLBIRTHS _____

YEAR	WT.	GEST.	COMPLICATIONS	POST PARTUM

PREV. C/S _____

HIGH RISK SCORE 1ST VISIT 36 WEEK AND/OR ON ADMISSION

FAMILY HX CONGENITAL DEAFNESS TB DIABETES TWINS HYPERTENSION BLEEDING

GENETIC HX

MED. AND SURG. DIABETES CONE BX EPILEPSY U.T.I.

PRESENT HX MEDICATION INFECTION INFERTILITY SMOKING

ALLERGIES – DRUGS

ETHNIC GROUP

CAUCASIAN ☐
INDIAN-METIS ☐
ESKIMO ☐
OTHER ☐

PREV. TRANSFUSION YES ☐ NO ☐

Hgb

S.T.S.

Rh.

LAB. NO.

IMMUNOGLOBULIN

ANTIBODIES

EXAMINATION DATE WEIGHT B.P. HEIGHT

HEAD AND NECK BREASTS PELVIC

HEART LUNGS CERVIX

ABDOMEN EXTREMITIES CORPUS

ADNEXA

OBSTETRICAL PELVIC ASSESSMENT

URINE	P	S	MICRO	C AND S	BREVINDEX	DATE
CERVIX	PAP.			C AND S		

RUBELLA H.I.T.

BLOOD SUGAR

DATE	WT.	BP.	URINE P / S	WEEKS	FUNDUS	POSITION	FH	MED AND REMARKS	RETURN IN

LITHO IN CANADA

PRE-NATAL SCORING FORM **PRE-NATAL RECORD**

PRENATAL SCORING FORM

1) Score each question as indicated 2) Total each category score at 1st visit 3) Repeat at 36 weeks 4) Repeat on admission 5) Record on P N sheet

I. REPRODUCTIVE HISTORY

AGE	<16	= 1	☐
	16 - 35	= 0	
	>35	= 2	
PARITY	0	= 1	☐
	1 - 4	= 0	
	5 +	= 2	

PAST OB HISTORY

HABITUAL ABORTION/ INFERTILITY	= 1	☐
P.P.H./MANUAL REMOVAL	= 1	☐
BABY >9 LBS. (4082 gm.)	= 1	☐
BABY <5½ LBS. (2500 gm.)	= 1	☐
P.E.T./HYPERTENSION	= 1	☐
PREVIOUS CAESAREAN	= 2	☐
STILLBIRTH OR NEONATAL DEATH	= 3	☐
PROLONGED LABOUR OR DIFFICULT DELIVERY	= 1	☐

II. ASSOCIATED CONDITIONS

PREVIOUS GYNAECOLOGICAL SURGERY	= 1	☐
CHRONIC RENAL DISEASE	= 2	☐
GESTATIONAL DIABETES	= 1	☐
DIABETES MELLITUS	= 3	☐
CARDIAC DISEASE	= 3	☐
OTHER MEDICAL DISORDERS (Chronic bronchitis, Lupus, Etc.) SCORE ACCORDING TO SEVERITY (1 to 3)	=	☐

III. PRESENT PREGNANCY

		1st VISIT	36 WEEKS	ON ADM
BLEEDING				
<20 WEEKS	= 1	☐	☐	☐
>20 WEEKS	= 3	☐	☐	☐
ANEMIA <10 gm %	= 1	☐	☐	☐
PROLONGED PREGNANCY (42 WEEKS)	= 1	☐	☐	☐
HYPERTENSION	= 2	☐	☐	☐
PREMATURE RUPTURE MEMBRANES	= 2	☐	☐	☐
POLYHDRAMNIOS	= 2	☐	☐	☐
SMALL FOR DATES	= 3	☐	☐	☐
MULTIPLE PREGNANCY BREECH	= 3	☐	☐	☐
MALPRESENTATION				
Rh ISOIMMUNIZATION	= 3	☐	☐	☐

CATEGORY SCORE _____ + CATEGORY SCORE _____ + CATEGORY SCORE _____

TOTAL RISK SCORE 1st VISIT = ☐ TOTAL AT 36 WEEKS = ☐ TOTAL ON ADMISSION TO HOSPITAL = ☐

(Record scores in box on prenatal sheet)

NOTE: LOW RISK = 0 - 2
HIGH RISK = 3 - 6
EXTREME RISK = 7>

COMMENTS

NOTES

DELIVERY RECORD

TYPE OF LABOUR

INDUCTION

ANAESTHESIA

DATE OF BIRTH

SPONTANEOUS

FORCEPS

THIRD STAGE

HOUR OF BIRTH

WEIGHT

L.B./S.B./N.N.D.

EPISIOTOMY

PRES. POS.

BLOOD LOSS

NURSING

BABY - SEX

COMPLICATIONS

DOCTOR'S SIGNATURE

POST PARTUM EXAMINATION

DATE

WEIGHT

LOCHIA

B.P.

MENSES

HAEMOGLOBIN

NURSING

PELVIS

PERINEUM

URINE

BREASTS

CERVIX

CORPUS

FAMILY PLANNING

ONTARIO ANTENATAL RECORD 1

HOSPITAL _____

PRESS HARD
THIS FORM IS IN TRIPLICATE

PATIENT'S NAME

ADDRESS

PHONE# HOME

DATE OF BIRTH | AGE | EDUC. LEVEL | MAR. STATUS

OCCUPATION | PHONE# WORK

FATHER'S NAME | AGE | OCC.

DOCTOR (FAMILY PHYS.)	OBS. CARE	BABY CARE	INSURANCE OHIP#

LMP (date) | CERTAIN: YES NO

CYCLE | DURATION

TYPE: | DURATION:

LAST USED:

HISTORY OF PREGNANCY

	YES/NO
BLEEDING	
VOMITING	
PYREXIA	
SMOKING (cigs/day)	
ALCOHOL	
RADIATION	

GRAVIDA	TERM	PREM	AB.	LIVE	MULTI PREG

Dates
Size

No.	Year	Sex	Gest. Age (wks.)	Birth Wt. (Kg.)	Dur. of Labour	Place of Birth	Type of Delivery	COMMENTS: RE - Pregnancy, Perinatal Death, Abnormality, etc.

SIGNIFICANT MEDICAL HISTORY

	YES/NO	COMMENTS
KIDNEY DIS.		
HEART DIS.		
HYPERTENSION		
DIABETES		
INFECTIONS		
THYROID DIS.		
TRANSFUSIONS		
OPERATIONS		
OTHER		

FAMILY HISTORY

	YES/NO	COMMENTS
HYPERTENSION		
DIABETES		
HEART DIS.		
MULTIPLE BIRTH		
MALFORMATION		
GENETIC DIS.		
EARLY ONSET DEAFNESS		
OTHER		

ALLERGIES

NUTRITION ASSESSMENT

	YES/NO
MILK PRODUCTS	
BREADS & CEREALS	
FRUITS & VEGETABLES	
PROTEIN SOURCES	

HEIGHT | PRE-PREGNANCY WEIGHT | PRESENT WEIGHT | B.P.

CHECK (✓) IF NORMAL

HEAD NECK THYROID	☐	VAGINA	☐
ENT.	☐	CERVIX	☐
TEETH	☐	UTERUS	☐
CHEST	☐	ADNEXA	☐
BREASTS	☐	EXTREMITIES	☐
HEART VASC. SYST.	☐	VARICOSITIES	☐
ABDOMEN	☐	NEUROLOGICAL	☐
VULVA	☐	CYTOLOGY	☐

PELVIC ARCHITECTURE

OTHER:

REMARKS (detail abnormal findings)

DISCUSSION TOPICS
SMOKING
ALCOHOL
DRUG USE
WORK PLANS
EXERCISE
COITUS
PRENATAL CLASSES
DENTAL CARE

PHYSICIAN'S SIGNATURE

DATE THIS ATTENDANCE

NEXT APPT.

WHITE - INFANTS CHART
PINK - DOCTOR'S COPY
CANARY - MOTHER'S CHART FORWARD TO HOSPITAL

ONTARIO
ANTENATAL RECORD 2

PATIENT'S NAME

ADDRESS

DOCTORS

RISK FACTORS IDENTIFIED INITIAL VISIT

QUICKENING

PRESS HARD
THIS FORM IS IN TRIPLICATE

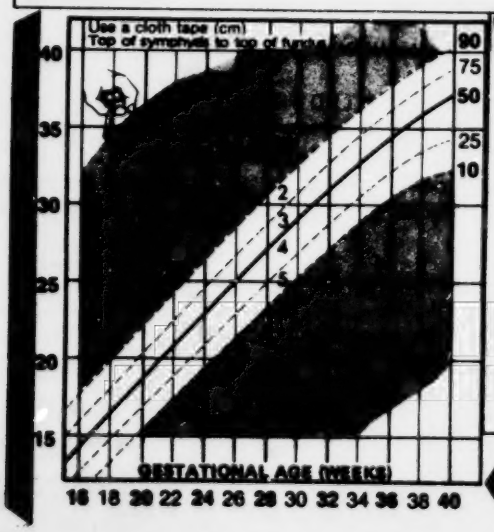
WHITE - INFANT'S CHART

PINK - DOCTOR'S COPY

CANARY - MOTHER'S CHART

DATE	WT. (lb./kg.)	G-AGE WK.	S-F HT	PRESN. POSN.	FH	URINE PR	URINE GL	URINE AC	BP	RISK GRADE	LAB	COMMENTS: (OTHER LAB, MEDICATIONS, ETC.)

ADDITIONAL COMMENTS:



ULTRASOUND AND ABNORMAL LABORATORY RESULTS

DIETICIAN

SOCIAL WORKER

NUTRITION
DIET
REST
TRAVEL
PREM. LABOUR
BREAST CARE
ANAES MED.
TYPE OF DELIVERY
FATHER AT DELIVERY
BREAST FEEDING
ROOM-IN
CIRCUMCISION
EARLY DISCHARGE
CAR SAFETY
OBSTETRICIAN
PAEDIATRICIAN

MEASURE SYMPHYSIS-FUNDUS HEIGHT AT EACH ANTENATAL VISIT AND RECORD ON GRAPH OPPOSITE.

PHYSICIAN'S SIGNATURE

POSTNATAL VISIT

DATE

WEEKS POSTPARTUM: _____

BREAST FEEDING: YES NO REASONS FOR DISCONTINUING _____

_____

PHYSICAL EXAM WT _____ kg. B.P. _____ mmHg.

_____

_____

_____

_____

_____

EPISIOTOMY: _____ C. SECTION INCISION: _____

RUBELLA IMMUNE YES NO VACCINATED ☐ URINALYSIS: _____

PAP: _____ _____

_____

UNRESOLVED PROBLEMS: _____

_____

_____

ADVICE RE FUTURE PREGNANCIES (EG. CONTRACEPTION, RISK STATUS, REQUIREMENT FOR ULTRASOUND ETC.)

_____

_____

PHYSICIAN'S SIGNATURE _____

A GUIDE TO PREGNANCY RISK GRADING

At each antenatal visit please give your assessment of pregnancy (fetal plus maternal) risk according to the following grading system. The risk factors or problems listed below are intended *as examples only*. Additional space is provided for other risk producing problems which you have identified. This risk grading system is intended as a basis for planning the ongoing management of the pregnancy.

Pregnancy at no predictable risk

- ☐ NO PRIOR PERINATAL MORTALITY OR LOW BIRTHWEIGHT INFANT
- ☐ NO SIGNIFICANT MEDICAL DISEASE
- ☐ NO PREGNANCY COMPLICATIONS NOW OR IN THE PAST (Bleeding, Hypertension, Premature Labour)
- ☐ FETAL GROWTH SEEMS ADEQUATE

Pregnancy at risk

The fetus and/or mother may be at risk and consultation should be considered with a specialist obstetrician in your area. In addition, consultation with an appropriate internist may also be necessary. (These patients may be managed by continuing collaborative care and delivery in an obstetrical unit with intermediate level nursing facilities OR they may be returned to the care of the referring physician with a suggested plan of management for the remainder of the pregnancy).

- ☐ DIABETES, CLASS A (GESTATIONAL) OR CLASS B
- ☐ HYPERTENSION WITHOUT TOXAEMIA
- ☐ APH, CEASED AND IN HOSPITAL
- ☐ CERVICAL INCOMPETENCE
- ☐ HYDRAMNIOS
- ☐ POST - DATE PREGNANCY (42 weeks +)
- ☐ HISTORY OF PRIOR STILL BIRTH OR NEONATAL DEATH OR PREMATURE DELIVERY
- ☐ MATERNAL OBESITY (20% > IDEAL B.WT.)
- ☐ SIGNIFICANT TOBACCO, ALCOHOL, DRUG INTAKE
- ☐ RHESUS IMMUNIZATION
- ☐ PREMATURE RUPTURE OF MEMBRANES 34 WK. OR MORE
- ☐ OTHER SIGNIFICANT MEDICAL ILLNESS
- ☐ RENAL DISEASE WITHOUT HYPERTENSION
- ☐ MILD TOXAEMIA
- ☐ CONTROLLED PREMATURE LABOUR
- ☐ MULTIPLE PREGNANCY
- ☐ BREECH: BEYOND 36 WEEKS
- ☐ PRIMIGRAVIDA (age 35 +)
- ☐ HISTORY OF GENETIC DISEASE IN FAMILY (Genetic Amniocentesis or Counselling required)
- ☐ ANAEMIC NOT RESPONDING TO IRON (< 10gm)
- ☐ WEIGHT GAIN < 10 lbs. BY 30 WEEKS
- ☐ GRAND MULTIPARA (> 5)
- ☐ LARGE FOR DATES
- ☐ PREVIOUS UTERINE SURGERY INCLUDING CAESAREAN SECTION
- ☐ .....

Pregnancy at high risk

Pregnancies which are so complicated that the fetus and/or mother are obviously in danger. If at all possible, these patients should be transferred to a regional perinatal centre (level III) for intensive care and delivery. Clearly, there are patients who deserve to be placed in this risk category (with problems such as excessive antepartum bleeding , cord prolapse, or advanced uncontrolled premature labour) who cannot be transferred safely or in time to benefit the fetus or mother.

- ☐ DIABETES CLASS C, D, F, R OR SIGNIFICANTLY COMPLICATED
- ☐ RENAL DISEASE WITH HYPERTENSION ± ↓FUNCTION
- ☐ PREMATURE RUPTURE OF MEMBRANES (± SEPSIS) *
- ☐ ANTEPARTUM BLEEDING, CONTINUING OR REPEATED *
- ☐ HYPERTENSION WITH SUPERIMPOSED TOXAEMIA
- ☐ EARLY UNCONTROLLED PREMATURE LABOUR *
- ☐ SEVERE FETAL GROWTH ARREST (< 10th Percentile)
- ☐ HEART DISEASE, ESPECIALLY WITH FAILURE
- ☐ .....
- ☐ .....
- ☐ .....
- ☐ .....

* 24 - 34 weeks gestational age.

Two or more minor risk problems can combine to produce a high pregnancy risk. Such a patient may deserve to be placed in a higher risk category.

DOSSIER PRÉNATAL No 1

APPUYEZ FERMEMENT. Formule en 3 exemplaires.

HÔPITAL ..... SOINS. OBS. ..... SOINS BÉBÉ .....

MÉDECIN .....

NOM DE LA MALADE ..... RELIGION .....

ADRESSE .....

DATE DE NAISSANCE J M A ÂGE ..... TÉL. .....

PROFESSION ..... ORIGINE ETHNIQUE ..... ÉTAT CIVIL .....

NIVEAU D'INSTRUCTION ..... OHIP NO. .....

NOM DU PÈRE ..... DATE DE NAISSANCE ..... ÂGE ..... PROF. .....

SITUATION FAMILIALE .....

[redacted]	[redacted]	[redacted]	[redacted]
Cycle D.M: Normale D.M (date)	Durée Anormale	Orale Durée (années) Stériet	Arrêt (date)	Dates J / M / A Dimensions	D.P.A. revisée J / M / A

[redacted]							

[redacted]						

[redacted]	
PERTES DE SANG	
[redacted]	
PYREXIE	
[redacted]	
ALCOOL	
[redacted]	
MÉDICAMENTS	
[redacted]	
ALLERGIES	

[redacted]					
MAL. REINS			HYPERTENSION		
[redacted]			[redacted]		
HYPERTENSION			MAL COEUR		
[redacted]			[redacted]		
INFECTIONS			MALFOMATION		
[redacted]			[redacted]		
MAL. THYROÏDE			MAL. GÉNÉTIQUES		
[redacted]			[redacted]		
OPRATIONS					

[redacted]
PRODUITS LAITIERS
[redacted]
FRUITS ET LÉGUMES

[redacted]
GAIN . POIDS
[redacted]
ALCOOL
[redacted]
ALLAITEMENT
[redacted]
PLANS TRAV.
[redacted]
COIT

[redacted]					
COCHER (✓) SI NORMAL					
[redacted]			[redacted]		
POITRINE			O.R.L.		
[redacted]			[redacted]		
TÊTE, COU, THYROÏDE			VULVE		
[redacted]			[redacted]		
ABDOMEN			COL		
[redacted]			[redacted]		
VARICES			OVAIRES		

[redacted]
[redacted]

[redacted]
[redacted]

DATE DE LA PREMIÈRE VISITE	J / M / A

SIGNATURE DU MÉDECIN .....

[redacted]
[redacted]

FEUILLE DE LA MÈRE - BLANCHE; FEUILLE DU MÉDECIN - JAUNE; FEUILLE DU BÉBÉ - ROSE

DOSSIER PRÉNATAL No 2

MÉDECIN

NOM DU MALADE

ADRESSE

J / M / A

M / A

RHÉSUS

TITRE RUBÉOLE

RÉSULTAT CYTOLOGIE

FOETO PROTÉINES

APPUYEZ FERMEMENT
Formule en 3 exemplaires

FEUILLE DE LA MÈRE - BLANCHE; FEUILLE DU MÉDECIN - JAUNE; FEU' 'U BÉBÉ - ROSE

À CHAQUE VISITE PRÉNATALE, INSCRIRE LES CATÉGORIES COURANTES SUSMENTIONNÉES DE RISQUES DE GROSSESSE — A, B ou C — UTILISER CETTE CATÉGORIE POUR LE TRAITEMENT CONTINU DE LA GROSSESSE.

par ex.: C ENVISAGER LE TRANSFERT
B ENVISAGER UNE CONSULTATION

DEUX RISQUES MINEURS OU PLUS COMBINÉS PEUVENT PRODUIRE UN RISQUE SERIEUX DE GROSSESSE.

Utiliser un ruban de tissu (cm) du début de la symphyse au fond de l'utérus

90
75
50
25
10

ZONE
1
2
3
4
5
6

GRAND POUR SON ÂGE OU JUMEAUX

PETIT POUR SON ÂGE

40
35
30
25
20
15

16 18 20 22 24 26 28 30 32 34 36 38 40

ÂGE GESTATIONNEL (SEM.)

MESURER LA HAUTEUR DE SYMPHYSE-FOND DE L'UTERUS À CHAQUE VISITE PRÉNATALE ET L'INSCRIRE SUR LE GRAPHIQUE CI-CONTRE.

NUTRITION

REPOS

COURS PRÉNATAUX

TYPE D'ACCOUCHEMENT

ALLAITEMENT

CONGÉ PRÉCOCE

CONTRÔLE DES NAISSANCES

PÉDIATRE

SIGNATURE DU MÉDECIN

GUIDE DE GRADATION DES RISQUES DE GROSSESSE

A chaque visite prénatale, indiquez votre évaluation des risques de la grossesse (foetus et mère) selon l'échelle de gradation suivante. Les facteurs **de risques ou les problèmes énumérés ci-dessous ne sont** que des *exemples*. Il reste des blancs où vous pouvez inscrire d'autres problèmes comportant des risques que vous avez relevés. Cette échelle de gradation des risques devrait servir de base à la planification du traitement continu de la grossesse.

CATÉGORIE A Grossesse sans risque prévisible

- ☐ AUCUNE MORTALITÉ PÉRINATALE ANTÉRIEURE OU BÉBÉ DE POIDS INFÉRIEUR
- ☐ AUCUNE MALADIE MÉDICALE IMPORTANTE
- ☐ AUCUNE COMPLICATION DE GROSSESSE MAINTENANT OU AUPARAVANT (Perte de sang, hypertension, travail prématuré)
- ☐ CROISSANCE APPAREMMENT NORMALE DU FOETUS

CATÉGORIE B Grossesse comportant des risques

Le foetus et (ou) la mère sont définitivement susceptibles à des complications et il faut obtenir une consultation d'un spécialiste en obstétrique de votre région. De plus, il faudra peut-être une consultation auprès d'un interniste de la spécialité voulue. On peut traiter ces cas grâce à des soins coopératifs continus dans une unité d'obstétrique où se fera l'accouchement et où existent des installations de soins infirmiers de niveau intermédiaire OU on peut les remettre entre les mains du médecin traitant en lui proposant une conduite à suivre applicable au reste de la grossesse.

- ☐ DIABÈTE CATÉGORIE A (GESTATIONEL) OU CATÉGORIE B
- ☐ HYPERTENSION SANS TOXÉMIE
- ☐ HAP, TERMINÉE ET À L'HÔPITAL
- ☐ INCOMPÉTENCE CERVICALE
- ☐ HYDRAMNIOS
- ☐ GROSSESSE PASSÉ TERME (42 semaines +)
- ☐ ANTÉCÉDENTS DE MORTINAISSANCE OU DE DÉCÈS NÉONATAL
- ☐ OBÉSITÉ MATERNELLE
- ☐ USAGE IMPORTANT DE TABAC, D'ALCOOL, DE DROGUES
- ☐ IMMUNISATION AU RHÉSUS
- ☐ .....
- ☐ .....
- ☐ AFFECTION RÉNALE SANS HYPERTENSION
- ☐ TOXÉMIE BÉNIGNE
- ☐ TRAVAIL PRÉMATURÉ CONTRÔLÉ
- ☐ GROSSESSE MULTIPLE
- ☐ PRÉSENTATION PAR LE SIÈGE
- ☐ PRIMIGESTE (âge 35 +)
- ☐ ANTÉCÉDENTS FAMILIAUX DE TROUBLES GÉNÉTIQUES (Amniocentèse génétique ou besoin de consultation)
- ☐ ANÉMIE FERRIPRIVE RÉFRACTAIRE
- ☐ GAIN DE POIDS <10 liv. à 30 semaines
- ☐ GRANDE MULTIPARE
- ☐ .....
- ☐ .....

CATÉGORIE C Grossesse à risque élevé

Grossesses si compliquées que le foetus et (ou) la mère sont manifestement en danger. Si cela est possible, on devrait transférer ces cas à un centre périnatal régional (niveau III) pour soins intensifs et accouchement. De toute évidence, il y a des cas qui méritent d'être classés dans cette catégorie de risqes (problèmes de pertes de sang excessives avant parturition, prolapsus du cordon ou travail prématuré avancé non contrôlé) mais qu'on ne peut transférer en sécurité ou à temps pour que ce soit avantageux au foetus ou à la mère.

- ☐ DIABÈTE, CATÉGORIE C, D, F, R OU SUFFISAMMENT COMPLIQUÉ
- ☐ AFFECTION RÉNALE ACCOMPAGNÉE D'HYPERTENSION ±↓FONCTION
- ☐ RUPTURE PRÉMATURÉE DE LA POCHE DES EAUX (± SEPTICÉMIE)*
- ☐ PERTES DE SANG AVANT PARTURITION, CONTINUES OU REPÉTÉES*
- ☐ .....
- ☐ .....
- ☐ HYPERTENSION COMPLIQUÉE DE TOXÉMIE
- ☐ TRAVAIL PRÉMATURÉ NON CONTRÔLÉ*
- ☐ ARRÊT DE CROISSANCE IMPORTANT DU FOETUS (< 10epercentile)
- ☐ TROUBLES CARDIAQUES, SURTOUT AVEC DÉFAILLANCE
- ☐ .....
- ☐ .....

* en particulier 24 à 34 semaines de gestation

La présence de deux risques mineurs ou plus peut produire une grossesse à risque élevé.
Il se peut que ces cas méritent d'être dans une catégorie à risque plus élevé.

QUEBEC

DOSSIER OBSTÉTRICAL
OBSERVATION MÉDICALE

Cadre réservé à l'usage du centre hospitalier

Nom _____

Prénom _____

Adresse _____

_____ N° de téléphone _____

Âge _____ Date de naissance _____

N° d'assurance-maladie _____

ANTÉCÉDENTS FAMILIAUX

Tuberculose, hypertension, cardiopathie, diabète, allergie, cancer, troubles neuro-psychiatriques, grossesse gémellaire, anomalies.

Préciser:

ANTÉCÉDENTS MENSTRUELS

Premières menstruations	Cycle	Durée	D.D.M.	D.P.A.	Méthode anticonceptionnelle	Cessée depuis
ans	jours	jours				

ANTÉCÉDENTS PERSONNELS (✓: positif O: négatif)

Antécédents éloignés				Antécédents récents (depuis les dernières menstruations)			
Maladies rénales		Phlébites, varices		Nausées		Rougeole — Varicelle	
Maladies cardiaques		Épilepsie		Vomissements		Autres infections virales	
Hypertension artérielle		Allergies aux médicaments		Mauvaise digestion		Irradiations, radiographie	
Rhumatisme articulaire aigu		Allergies		Constipation		Traumatismes	
Tuberculose		Dyscrasies sanguines		Céphalées		Médicaments	
Maladies vénériennes		Incompatibilité Rh ABO		Hémorragies (préciser)		Vaccins	
Maladies gynécologiques		Opérations antérieures		Pertes vaginales (préciser)		Drogues	
Infections virales		Accidents antérieurs		Oedème		Alcool	
Maladies neuro-psychiatriques		Vaccins		Transfusions de sang		Cigarette	
Diabète		Génétique		Douleurs abdominales (préciser)		Travail à l'extérieur	
Affections de la thyroïde		Immunoglobuline anti-D		Symptômes urinaires			

Préciser:

Grossesses antérieures	À terme	Prématurées	Dysmatures	Avortements	Enfants vivants	Grossesse multiple Grossesse ectopique

N°	Date (An / Mois / Jour)	Centre hospitalier	Durée de la grossesse	Durée du travail	Incidents de l'accouchement	♂ ou ♀	Masse (poids)	Complications: Chez la mère	Complications: Chez l'enfant

AH-388

MÉDECIN TRAITANT

DOSSIER OBSTÉTRICAL
OBSERVATION MÉDICALE

Nom _____

Prénom _____

Adresse _____

_____ N° de téléphone _____

Âge _____ Date de naissance _____

N° d'assurance-maladie _____

Cadre réservé à l'usage du centre hospitalier

[illegible]	[illegible]	N° du dossier médical
[illegible]	[illegible]	
[illegible]		
[illegible]	[illegible]	N° de téléphone
[illegible]		
[illegible]		

EXAMEN PHYSIQUE			
Taille m	Masse (poids) avant la conception kg	Masse (poids) actuelle kg	
Yeux	Dents	Pharynx	Thyroïde
Cou	Peau	Coeur	Poumons
Seins	Mamelons	Tumeurs	
Abdomen		Colonne	
Membres inférieurs	Oedème	Varices	

EXAMEN GYNÉCOLOGIQUE			
Vulve			
Vagin			
Périnée			
Col			
Utérus			
		Correspondance entre le volume de l'utérus et l'âge de la grossesse	
Annexes			
Toucher rectal		Cul-de-sac de Douglas	
Pelvimétrie	Clinique	Promontoire	Épines sciatiques
	Radiologique	Oui ☐ Non ☐ Si oui, date	
Dystocie prévue au détroit	supérieur ☐	moyen ☐	inférieur ☐
Cytologie	Oui ☐ Non ☐ Si oui, date		
Problèmes spéciaux			
Type d'accouchement prévu	Type d'anesthésie prévu	Allaitement maternel prévu	

2

_____ Date

_____ Signature

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MEDECIN TRAITANT

Cadre réservé à l'usage du centre hospitalier

DOSSIER OBSTÉTRICAL

ÉVOLUTION DE LA GROSSESSE

Nom à la naissance _____

Prénom(s) _____

Adresse _____

_____ N° de téléphone _____

Âge _____ Date de naissance _____

N° d'assurance-maladie _____

Nom du conjoint _____

EXAMENS DE LABORATOIRE

B.W. _____ Date _____

Hb _____ Ht _____ Date _____

Groupe et Rh de la mère _____ Anticorps _____ Cytologie _____ Date _____

Urines (sommaire et culture) _____

D.P.A. selon: a m j

1. D.D.M. |_|_|_|_|_|_|
2. clinique |_|_|_|_|_|_|
3. échographie |_|_|_|_|_|_|

Visites prénatales (O: négatif, + : anormal, —: ne s'applique pas) Cours prénatals ☐ oui ☐ non

D.D.M. Date a m j	Semaines de grossesse	Hauteur du fond utérin	Masse (poids) kg	Tension artérielle	Albuminurie	Glycosurie	Coeur fœtal	Nausées	Vomissements	Oedème	Position et présentation	Hémoglobine	Traitements ou remarques (échographie, amniocenthèse, oestriol, épreuve de stress, anticorps)	Initiales

Remarques

3

AH-268 (rev. 10-80)

AH-269 (rev. 10-80)

DOSSIER OBSTÉTRICAL
ÉVOLUTION DU TRAVAIL

Cadre réservé à l'usage du centre hospitalier

Nom de l'établissement _____

Date d'admission _____ heure ____ h ____

Date du début du travail _____ heure ____ h ____ ☐ spontané ☐ déclenché

Membranes ☐ intactes ☐ rompues _____ h _____ liquide _____
Date

État de la parturiente à son admission

☐ Rasage Par.
☐ Lavement Ab
☐ Glycosurie Gr.
☐ Albuminurie D.M.
☐ Hémogramme et groupe sanguin Sem. de gestation
☐ Culture d'urine D.P.A.

Médecin prévenu à _____ h _____

Date	Heure (0 - 24)	T° (°C)	Pouls	Tension artérielle	Coeur foetal	Contractions: Fréquence (min.)	Contractions: Durée (en s)	Contractions: Intensité 1 + à 4 +	Membranes I. ou R.	Dilatation (en cm)	Effacement	Station	Ocytocique: Milliunités (par min.)	Ocytocique: Microgouttes (par min.)	Traitements et remarques	Initiales
				/												
				/												
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DOSSIER MÉDICAL

Cadre réservé à l'usage du centre hospitalier

DOSSIER OBSTÉTRICAL

COURBE DE FRIEDMAN (1)

Nom de l'établissement _____

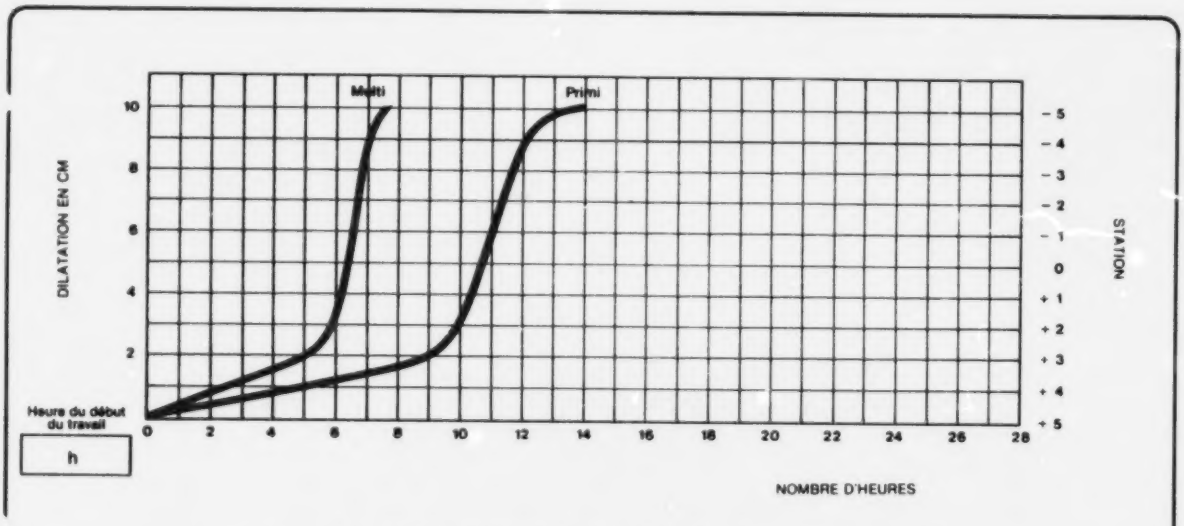
_____

Raison d'admission

☐ Membranes rompues ☐ Travail vrai ☐ Césarienne non urgente

☐ Suspension du travail ☐ Autre _____

☐ Indication du déclenchement _____



(1) Friedman, Emmanuel A. Labor in Multiparas. Extrait de: Obst. & Gynec. vol. 8 n° 6; 1956. p. 696.

Date	Heure	Médication (inscrire la date, l'heure, le nom, la quantité et la voie d'administration)	Initiales
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		

DOSSIER OBSTÉTRICAL
GROSSESSE, TRAVAIL ET ACCOUCHEMENT
ÉVOLUTION DE LA MÈRE ET
ÉVALUATION DU NOUVEAU-NÉ

Cadre réservé à l'usage du centre hospitalier

Nom de l'établissement _____

GROSSESSE, TRAVAIL ET ACCOUCHEMENT

D.D.M. a m j _____ D.P.A a m j _____ Groupe et Rh Anticorps

Par.	Gr.	Ab.	Enfants vivants	Particularités (complications ou diagnostics pendant cette grossesse ou les grossesses antérieures)

Présentation
☐ tête ☐ siège ☐ autre (préciser)

Travail ☐ Spontané ☐ Déclenché

Début du travail a m j _____ h _____

Membranes rompues a m j _____ h _____

1er stade durée _____
2e stade durée _____
3e stade durée _____
durée totale _____

Analgésie durant les 4 dernières heures (médicament, dosage)

Corticostéroïdes (date et heure de la première dose)

Anesthésie
Aucune ☐ Générale ☐ Bloc para-cervical ☐ Épidurale ☐ Bloc honteux ☐ Locale ☐

Accouchement a m j _____ h _____

☐ Par voie vaginale ☐ Par césarienne

☐ TÊTE
- ☐ Spontané
- ☐ Forceps bas
- ☐ Forceps moyens
- ☐ Rotation

☐ SIÈGE
- ☐ Spontané
- ☐ Assisté
- ☐ Forceps

☐ Itérative
☐ Transversale basse
☐ Médiane basse
☐ Classique
☐ Hystérectomie

Indication de la césarienne

Épisiotomie Aucune ☐ Médiane ☐ Médio-latérale ☐

Déchirure
Aucune ☐ Périnéale 1 2 3 4 ☐ Cervicale ☐ Vaginale ☐ Pertes sanguines _____ ml

Cordon ombilical
Clampage
☐ < 45 secondes après l'accouchement
☐ > 45 secondes après l'accouchement

Circulaires
☐ Lâches
☐ Serrés
☐ Coupés pendant l'accouchement
☐ Coupés après l'accouchement

Placenta
Masse _____ g
☐ Évacuation spontanée
☐ Évacuation manuelle
☐ Vaisseaux ombilicaux 2 3

Anomalies

Complications
Aucune ☐ Méconium ☐ Détresse foetale ☐

Coeur foetal
☐ < 120
☐ 120 à 160 ☐ irrégulier ☐ inaudible
☐ > 160

Monitorage ☐ clinique ☐ externe ☐ interne

Signature du médecin | Date

ÉVALUATION DU NOUVEAU-NÉ

Sexe ☐ ♂ ☐ ♀ ☐ Vivant ☐ Mort-né Masse _____ g

☐ Gouttes ophtalmiques ☐ Vitamine K ☐ Ondoyé

Alimentation ☐ Maternelle ☐ Artificielle ☐ homo. ☐ humanisé

Réanimation ☐ oui ☐ non

Ventilation ☐ Avec sac et masque ☐ Tube trachéal _____ min. ☐ Aspiration trachéale

Asphyxie ☐ Aucune ☐ Modérée ☐ Importante

☐ Anomalies
☐ Complications

Spécifier:

Parents informés ☐ oui ☐ non

APGAR	0	1	2	1 min.	5 min.	10 min.
Battements cardiaques	Absents	Moins de 100	Plus de 100			
Efforts respiratoires	Absents	Lents irréguliers	Bons pleurs			
Tonus musculaire	Flasque	Flexion des extrémités	Mouvements actifs			
Réflexes à la stimulation	Absents	Grimace	Pleure avec force			
Coloration des téguments	Bleue pâle	Corps rose extrémités bleues	Entièrement rose			
Remarques			Total			

Nom du médecin qui suit l'enfant | Date

ÉVOLUTION DE LA MÈRE

Suites de couche
☐ Normales
☐ Anormales

Hb la plus basse _____

Dernière Hb _____

Hémorragie des suites de couche
☐ Immédiate
☐ Tardive

Transfusion _____ sacs

Immunoglobuline anti-D
Donnée le a m j _____ par

Fièvre ☐ oui ☐ non Si oui préciser s'il y a lieu

☐ Endométrite ☐ Infection de plaie ☐ Autre
☐ Autre infection pelvienne
☐ Trombo-embolie
☐ Infection urinaire
☐ Infection respiratoire

État à la sortie a m j Date _____ Vivante ☐ Décédée ☐ Transférée ☐

Signature du médecin | Date

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DOSSIER DE LA MERE

OBSTETRICAL CHART
MEDICAL HISTORY

QUEBEC

Space reserved for the use of the hospital center

Surname _____

Given name(s) _____

Address _____

_____ Telephone No. _____

Age _____ Date of birth _____

Health insurance no. _____

Name of spouse _____

FAMILY HISTORY

Tuberculosis, hypertension, cardiopathy, diabetes, allergy, cancer, neuro-psychiatric diseases, twins, anomalies, genetic diseases

Specify:

MENSTRUAL HYSTORY

MENARCHE	CYCLE	DURATION	L.M.P.	E.D.C.	BIRTH CONTROL METHOD	STOPPED SINCE
Years	Days	Days	yr m day	yr m day		yr m day

PERSONAL HYSTORY (O: negative, +: abnormal, — : not applicable

PAST MEDICAL HYSTORY				RECENT HYSTORY, SINCE L.M.P.			
Renal diseases		Phlebitis, varicose veins		Nausea, vomiting		Other viral infection	
Cardiac diseases		Epilepsy		Constipation		Exposure to radiation X-Rays	
Arterial hypertension		Drug allergies		Headache		Accidents	
Acute articular rheumatism		Allergies		Hemorrhage (specify)		Medication	
Tuberculosis		Blood dyscrasia		Vaginal discharge (specify)		Vaccines	
Veneral diseases		RH.abo incompatibility		Edema		Drugs	
Gynecological diseases		Previous surgery		Bloods transfusions		Alcohol	
Viral infections		Previous accidents		Abdominal pain (specify)		Cigarettes (number)	
Neuro-psychiatric diseases		Pertinant vaccines		Urinary symptoms		Work	
Diabetes		Genetic		Rubella, measles			
Thyroid diseases		Rhogam		Herpes vaginalis			

Specify:

HISTORY OF PAST PREGNANCIES

Total number of previous pregnancies	Term.	Premature	Abortions	Livebirths

No.	DATE yr m day	Type of delivery	Duration of gestation	Duration of labour	Type of anaesthesia	♂ or ♀	Weight	Complications Mother	Complications Child

AH-288A (rev. 10-80)

Signature _____

MEDICAL RECORD

OBSTETRICAL CHART
MEDICAL HISTORY

Space reserved for the use of the hospital center

Surname _____

Given name(s) _____

Address _____

_____ Telephone No. _____

Age _____ Date of birth _____

Health insurance No. _____

Name of spouse _____

PHYSICAL EXAMINATION			
Height (meters) m	Weight before pregnancy Kg	Weight now Kg	
Eyes	Teeth	Pharynx	Thyroid
Neck	Skin	Heart	Lungs
Breasts	Nipples	Tumours	
Abdomen		Spine	
Lower limbs	Edema	Varicose veins	

GYNECOLOGICAL EXAMINATION				
Vulva				
Vagina				
Perineum				
Cervix				
Uterus				
			Relationship between size of uterus and weeks of gestation	
Annexae				
Rectal			Pouch of Douglas	
Pelvimetry	Clinical	Promontary	Ischial spines	
	Radiological	Yes ☐ No ☐ If yes, date yr m day		
Dystocia anticipated	Inlet ☐	Midplane ☐	Outlet ☐	
Cytology	Yes ☐ No ☐ If yes, date yr m day			
Special problems				
Type of delivery anticipated	Type of anaesthesia anticipated	Breast feeding anticipated		

_____ Date

_____ Signature

AH-267A (rev. 10-80)

HOSPITAL CENTER

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OBSTETRICAL CHART

EVOLUTION OF PREGNANCY

Surname _____

Given name(s) _____

Address _____

_____ Telephone No. _____

Age _____ Date of birth _____

Health insurance No. _____

Name of spouse _____

LABORATORY INVESTIGATIONS

B.W. _____ Date _____

Hb _____ Ht _____ Date _____

Mother's Rh group _____ antibodies _____ Cytology _____ Date _____

Urine (summary and culture) _____

E.D.C. according to

	yr	m	day
1. L.M.P.			
2. Clinical			
3. Echography			

PRENATAL VISITS (0: negative + : abnormal — : not applicable)

Prenatal courses ☐ Yes ☐ No

L.M.P.

DATE yr m day	Weeks of gestation	Height of fundus of uterus	Weight kg	Arterial tension	Albuminuria	Glycosuria	Fetal heart	Nausea / Vomiting	Edema	Position and presentation	Hemoglobin	TREATMENT AND REMARKS (Echography, amniocentesis, estriol, stress test, antibodies)	Initials
				/				/					
				/				/					
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				/				/					

Remarks:

3

AH-288A (rev. 10-80)

MEDICAL RECORD

A1H-290A (rev. 10-80)

OBSTETRICAL CHART
EVALUATION OF LABOUR

Space reserved for the use of the hospital center

Name of establishment _____

Date of admission _____ Hour ____ h ____

Date of on set of labour _____ Hour ____ h ____ ☐ Spontaneous ☐ Induced

Membranes ☐ Intact ☐ Ruptured _____ h _____ Amniotic fluid _____
Date

STATE OF PATIENT UPON ADMISSION

☐ Shave prep.
☐ Enema
☐ Glycosuria
☐ Albuminuria
☐ Hemogram and blood group
☐ Urine culture

Para
AB
GR
D.M.:
Weeks of gestation
E.D.C.

Physician notified at _____ h _____

Date	Time (0 - 24)	Temperature (°C)	Pulse	Arterial tension	Fetal heart	Contractions: Frequency (min)	Contractions: Duration (sec)	Contractions: Intensity 1 + to 4 +	Membranes I or R	Dilatation (cm)	Effacement	Station	Oxytocic concentration: Milli units (min)	Oxytocic concentration: Microdrips (min)	Treatment and remarks	Initials
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MEDICAL RECORD

Space reserved for the use of the hospital center

OBSTETRICAL CHART
FRIEDMAN'S CURVE

Name of establishment _____

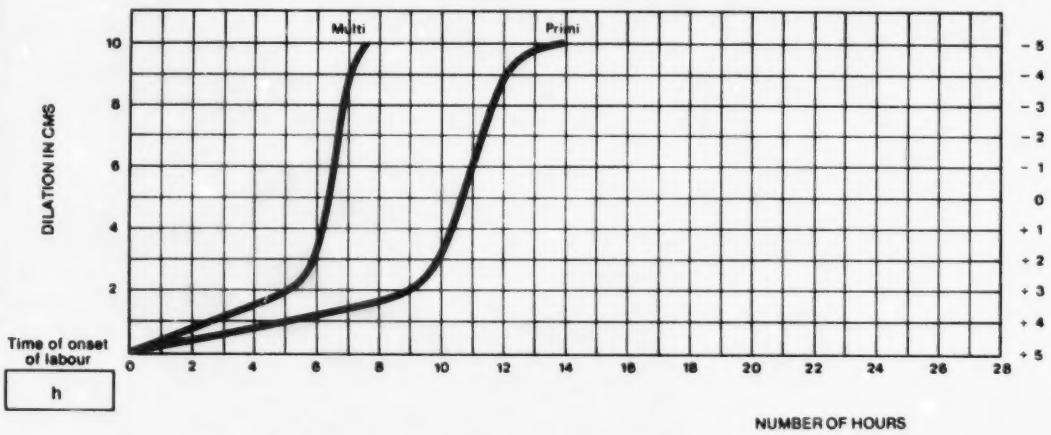
_____

Reason for admission

☐ Ruptured membranes ☐ True labour ☐ Elective c. section

☐ False labour ☐ Other _____

☐ **Induction** _____



(1) Friedman, Emmanuel A. Labor in Multiparas. Extrait de: Obst. & Gynec. vol. 8 n° 6; 1956. p. 696.

Date	Time	Medication (indicate date, time, name, dosage, and route of administration)	Initials
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		
	h		

OBSTETRICAL CHART

PREGNANCY, LABOUR AND DELIVERY
EVOLUTION OF THE MOTHER AND
EVALUATION OF THE NEWBORN

Space reserved for the use of the hospital center

Name of establishment _____

PREGNANCY, LABOUR AND DELIVERY

L.M.P. yr m day E.D.C. yr m day Group and Rh Antibodies

Par	Gr	Ab	Live children	Peculiarities (complications or diagnostics since this pregnancy or past pregnancies)

Presentation
☐ Vertex ☐ Breech ☐ Other (specify)

Labour ☐ Spontaneous ☐ Induced

Onset of labour yr m day _____ h _____

Membranes ruptured yr m day _____ h _____

1st stage duration _____
2nd stage duration _____
3rd stage duration _____
Total duration _____

Analgesia during last 4 hours (medicines, dosage)

Corticosteroids (date and hour of 1st dosage)

Anaesthesia
None ☐ General ☐ Para-cervical ☐ Epidural ☐ Pudental ☐ Local ☐

Delivery yr m day _____ h _____

☐ Vaginal ☐ Caesarian section

☐ VERTEX
- ☐ Spontaneous
- ☐ Low forceps
- ☐ Mid forceps
- ☐ Rotation

☐ BREECH
- ☐ Spontaneous
- ☐ Assisted
- ☐ Forceps

☐ Iterative
☐ Low transverse indication
☐ Low median
☐ Classical
☐ Hysterectomy

Indication of cesarian section

Episiotomy None ☐ Median ☐ Medio-lateral ☐

Laceration
None ☐ Perineal 1 2 3 4 ☐ Cervical ☐ Vaginal ☐ Blood loss _____ cc

Umbilical cord
Clamping
☐ < 45s after delivery
☐ > 45s after delivery

Expression of umbilical cord
☐ Loose
☐ Tight
☐ Cut during delivery
☐ Cut after delivery

Placenta
Mass _____ g
☐ Spontaneous
☐ Manual
☐ Umbilical vessels 2 3

Anomalies

Complications
None ☐ Meconium ☐ Fetal distress ☐

Fetal heart
☐ < 120
☐ 120 - 160 ☐ Irregular
☐ > 160 ☐ None

Monitoring
☐ Clinic
☐ Out-patient
☐ In-patient

Signature of physician | Date

EVALUATION OF NEWBORN

Sex ☐ ♂ ☐ ♀ ☐ Living ☐ Stillborn Mass _____ g

☐ Ophtalmic drops ☐ Vitamin K ☐ Baptized privately

Nourishment ☐ Maternal ☐ Artificial ☐ homo. ☐ simili maternal

Resuscitation ☐ Yes ☐ No

Ventilation ☐ With sack and mask ☐ Tracheal tube _____ min ☐ Tracheal aspiration

Asphysia ☐ None ☐ Moderate ☐ Severe

☐ Anomalies
☐ Complications

Remarks

Parents informed ☐ Yes ☐ No

APGAR	0	1	2	1 min	5 min	10 Min
Heart rate	Absent	Slow (below 100)	Over 100			
Resp. rate and effort	Absent	Slowing, irreg.	Good crying			
Muscle tone	Flaccid	Flexion of ext.	Active motion			
Reflex irritability	No response	Grimace	Cry			
Color	Blue - pale	Body pink ext. blue	All pink			
			Total			

Remarks

Name of physician caring for child | Date

EVOLUTION OF THE MOTHER

Post partum course
☐ Normal
☐ Abnormal

Lowest HGB _____

Last HGB _____

Post partum haemhorrage
☐ Immediate
☐ Late

Transfusion _____ sacks

Immunoglobuline anti-D
Given
a m j
par

Fever ☐ Yes ☐ No If yes, state as the case may be

☐ Endometritis ☐ Wound infection ☐ Other
☐ Other pelvic infection
☐ Thrombo-embolism
☐ Urinary infection
☐ Respiratory infection

Condition on discharge Date yr m day ☐ Alive ☐ Deceased ☐ Transferred

Signature of physician | Date

AH-272A (rev. 10-80)

MOTHER'S RECORD

THE MEDICAL SOCIETY OF NOVA SCOTIA PRENATAL RECORD (REVISED 1982)

NOVA SCOTIA

FOR COPIES CONTACT - REPRODUCTIVE CARE PROGRAM 5821 UNIVERSITY AVENUE HALIFAX NOVA SCOTIA B3H 1W3

NAME	ADDRESS	PHONE
DOCTOR	HOSPITAL	MED INS NO
AGE MENSTRUAL CYCLE PILL STOPPED LNMP		EDC

OBSTETRICAL HISTORY

GRAV _____ PARA _____ ABORT _____ ALIVE _____ SB _____ NND _____

PREM _____ IUGR _____ CONG ABN _____ C/S _____

YEAR	WT	GEST	COMPLICATION	HOSPITAL OF DELIVERY

HOSPITAL COPY — Prenatal Score on Flip Side

	YES	NO
BREASTFEEDING		
PRENATAL CLASSES		
ADEQUATE DIET		
ALLERGIES		
MEDICATIONS		
PREV TRANS		

HIGH RISK SCORE

1st VISIT ☐ 36 WEEKS ☐

_____

_____

_____

FAMILY HISTORY e.g. DIABETES HYPERTENSION TWINS HEREDITARY DISEASE

PAST HEALTH e.g. DIABETES EPILEPSY U.T.I. SURGERY

FUNCTIONAL ENQUIRY HYPERTENSION RENAL DIS SMOKING ALCOHOL

SOCIAL HISTORY

(OCCUPATION, SPECIAL PARENTING NEEDS, ETC.)

EXAMINATION

DATE PRE-PREG WEIGHT B.P. HEIGHT

HEAD AND NECK BREASTS PELVIC

HEART LUNGS CX

ABDOMEN EXTREMITIES CORPUS

ADNEXA

OBSTETRIC PELVIC ASSESSMENT

URINE	P	S	MICRO	C AND S	PREG. TEST DATE
CERVIX	PAP			G.C. C AND S	QUICKENING DATE

LAB DATA

HGB RUBELLA TITRE

VDRL BLOOD SUGAR

GROUP Rh

HUSBAND'S Rh

ANTIBODIES _____

_____

_____

_____

28 WEEK Rh IMMUNE GLOBULIN DATE:

DATE	WT	BP	URINE P / S	GESTATION WEEKS	FUNDAL HEIGHT cm: 1 SYMPH	PRESENTATION	FH	RISK SCORE	RETURN IN	HGB AND REMARKS

DELIVERY RECORD

TYPE OF LABOUR

INDUCTION

ANAESTHESIA

DATE OF BIRTH

HOUR OF BIRTH

PRES. POS.

BABY-SEX

COMPLICATIONS:

SPONTANEOUS

WEIGHT

BLOOD LOSS

ASPHYXIA NEONATORUM

FORCEPS

L.B./S.B./N.N.D.

THIRD STAGE

EPISIOTOMY

NURSING

DOCTOR'S SIGNATURE

POSTPARTUM EXAMINATION

DATE

WEIGHT

B.P.

HAEMOGLOBIN

URINE

FAMILY PLANNING

LOCHIA

MENSES

NURSING

BREASTS

PELVIS

CERVIX

PERINEUM

CORPUS

MATERNAL HISTORY & PHYSICAL

Date Time

Family History: **Details:**

- ☐ TB
- ☐ Diabetes
- ☐ Allergies
- ☐ Other Specify:
- ☐ Epilepsy
- ☐ Hypertension
- ☐ Heart Disease
- ☐ Nervous & Mental
- ☐ Multiple Birth
- ☐ Heriditary Disease
- ☐ Malignant Hyperthermia

Medical History: **Details:**

- ☐ Kidney Disease
- ☐ Heart Disease
- ☐ Hypertension
- ☐ Rheumatic Fever
- ☐ Tuberculosis
- ☐ Venereal Disease
- ☐ Gyn. Disorder
- ☐ German Measles
- ☐ Nervous & Mental
- ☐ Diabetes
- ☐ Thyroid Function
- ☐ Phlebitis, Varicos.
- ☐ Blood Dyscrasia
- ☐ **Allergies**
- ☐ **Drug Reactions**
- ☐ Blood Transfusions
- ☐ RH, ABO Sensitivity
- ☐ Operations, Accidents
- ☐ Other:

History Since last Menstrual Period: **Details**

- ☐ Nausea
- ☐ Vomiting
- ☐ Indigestion
- ☐ Constipation
- ☐ Headache
- ☐ Edema
- ☐ Bleeding (Specify)
- ☐ Vaginal Discharge
- ☐ Abdominal Pain
- ☐ Urinary Complaints
- ☐ German Measles
- ☐ Other Virus
- ☐ Radiation (Specify)
- ☐ Accidents
- ☐ Medications
- ☐ Other:

Menstrual History: Onset at age ☐ Pattern: ☐ days

LMP ☐ Normal? Yes ☐ No ☐

EDC ☐ Present Gestation ☐

DATES

Last B.C. Pill ☐

Pos. Preg. Test ☐

First ☐

Summary of Previous Pregnancies (Include Abortions): No. of Living Children ☐

No.	Year	Place of Confinement	Gest.	Dur. of Labour	Type of Delivery	Weight	Sex	Complications

Signature

RCP/01

DATE/TIME	

RCP/01

MATERNAL HISTORY & PHYSICAL

Physical Examination:		
Ht.:	Pres. Wt.	Wt. at LMP
Optic Fundi	Teeth	Thyroid
Heart	B.P.	ENT.
Lungs	Skin	
Breasts	Nipples	Tumors
Abdomen	Height of Fundus	
Fetal Heart	Presentation and Position	Amniotic Fluid Vol.
Extremities	Varicosities	Edema
Pelvic Exam:	CNS	Reflexes

Labour: ☐ Yes ☐ No ☐ Suspected

Risk Score

Low Risk = **0 - 2**
High Risk = **3 - 6**
Extreme Risk = ≥ 7

Summary Diagnoses, Problems and Management:

Date/Time **Signature**

RCP/01

ANTE-NATAL RISK ASSESSMENT

I Reproductive History

< 16 = 1
Age 16 - 35 = 0
> 35 = 2 ☐

0 = 1
Parity 1 - 4 = 0
5+ = +2 ☐

Past OB History

Habitual Abortion/ Infertility	= 1	☐
P.P.H./Manual Removal	= 1	☐
Baby 9 lbs. (4082 gm.)	= 1	☐
Baby 5.5 lbs. (2500 gm.)	= 1	☐
P.E.T./Hypertension	= 1	☐
Previous Caesarean	= 2	☐
Stillbirth or Neonatal Death	= 3	☐
Prolonged Labour or Difficult Delivery	= 1	☐

Category Score _____

II Associated Conditions

Previous Gynecological Surgery	= 1	☐
Chronic Renal Disease	= 2	☐
Gestational Diabetes	= 1	☐
Diabetes Mellitus	= 3	☐
Cardiac Disease	= 3	☐

Other Medical Disorders

(Chronic Bronchitis, Lupus, etc.)	☐
Score according to Severity (1 to 3)	☐

Category Score _____

III Present Pregnancy

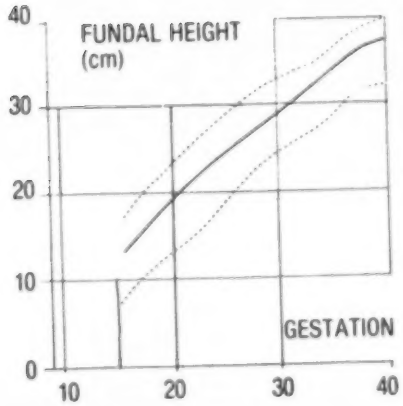
Bleeding

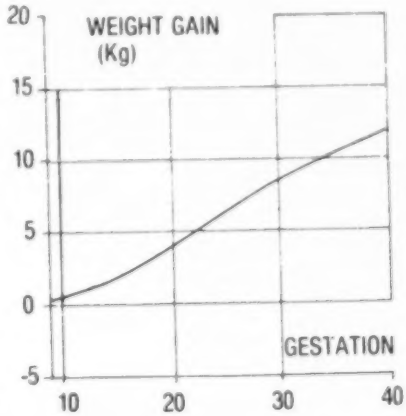
< 20 Weeks	= 1	☐
≥ 20 Weeks	= 3	☐
Anemia < 10 GM %	= 1	☐
Prolonged Pregnancy (42 Weeks)	= 1	☐
Hypertension	= 2	☐
Premature Rupture Membranes	= 2	☐
Polyhydramnios	= 2	☐
Small For Dates	= 3	☐
Multiple Pregnancy or Breech or Malpresentation	= 3	☐
RH Isoimmunization	= 3	☐

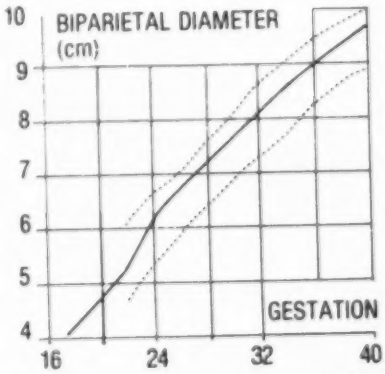
Category Score _____
Total Risk Score _____

Coopland & Al. Time

Low Risk	**0 - 2**
High Risk	**3 - 6**
Extreme Risk	**≥ 7**







I RCP/01

ANTEPARTUM/INTRAPARTUM NURSING ADMISSION

Admission

Date
Time

Method of Admission
☐ Ambulatory
☐ Wheelchair
☐ Stretcher

Accompanied by _____
Is this your usual hospital of obstetrical care ☐ Yes ☐ No
If no, referral by physician ☐ or self ☐

Reproductive History

Grav.
Para
Abort
S.B.
N.D.

LMP
EDC/dates
GEST. in wk.

Prenatal Complications: ☐ Yes ☐ No Specify:

Prev. Adm. this preg. ☐ Yes ☐ No When?

Prev. C/S ☐ Yes ☐ No Specify:

Lab

	Date		
Blood Grp.		VDRL	
Rh Titre		Hgb (Adm)	
Rh Serum		Rubella Titre	

	Date	Where
Pelvic X-Ray: ☐ Yes ☐ No		
Ultrasound: ☐ Yes ☐ No		
Other Tests: ☐ Yes ☐ No		
Specify:		

Pertinent History

	Yes	No	Specify:
Drug Allergies:	☐	☐	
Other Allergies:	☐	☐	
Medications:	☐	☐	
Non-Medical Drugs:	☐	☐	
Special Diet:	☐	☐	
Dentures:	☐	☐	
Contact Lenses:	☐	☐	
Glasses:	☐	☐	

Smoker: ☐ Yes ☐ No Cig. Day in Preg. ____ Cig./Day before Preg. ____ No. of Yrs. ____

Alcohol: ☐ Yes ☐ No Drinks/Wk in Preg. ____ Drinks/Wk before Preg. ____ No. of Yrs. ____

Reason for Admission

Labor ☐ Yes ☐ No (if yes)
Prep ☐ Yes ☐ No
Enema ☐ Yes ☐ No

Physical Assessment

Abd. Palpation:				T				**URINE:**	
Pres. Wt.		Presentation		P		BP		Protein	
Wt. Gain		Position		R		Reflexes		Sugar	
Fundal Ht.		Engagement		FH		Edema		Acetone	

Additional Information

	Yes	No
Prenatal Classes:	☐	☐
Breast Feeding	☐	☐
Rooming In:	☐	☐
Keeping Baby:	☐	☐
Seeing Baby:	☐	☐
Social Worker Consult:	☐	☐

Patient's Requests:

Nursing Plan/Comments

High Risk Score ____

Time Dr. Notified ____ Dr. ____

Signature _____

RCP/02

PARTOGRAM

Admission Date ____ Time: ____ hrs.

Last Solid Food Intake Date: ____ Time: ____ hrs.

Time Dr. Notified ____

Dr. ____

Onset Regular Conts. Date ____ Time ____ hrs.

Membranes:

- ☐ Intact
- ☐ S.R.M. — Date ____ Time ____ hrs.
- ☐ A.R.M. — Date ____ Time ____ hrs.
- ☐ Questionable

Color of Fluid ____ Quantity of Fluid ____

TIME		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cervix	10															
	9															
-3	8															
-2	7															
-1	6															
0	5															
+1	4															
+2	3															
+3	2															
Descent	1															
	0															
Caput																
Molding																
Amniotic Fluid/Color																
Show/Vag. Bleeding																
URINE Sugar																
Protein																
Acetone																
Intake																
Output																
Temperature																
Respirations																
Reflexes																

RCP/03

Patient's Name and Hospital #

RCP/03

TIME	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CONT'S																
Medication																
Drops/Min																
Units/500 cc																
Drugs IV Fluids Epidural																
F.H.R. ✓	200 190 180 170 160 150 140 130 120 110 100 90 80 70															
B.P. • Pulse x	220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60															
Nurse's Signature																

IMMEDIATE POSTPARTUM

	Initial P.P. checks				15 min x 5			30 min x 2		1 hr. x 4					
Time															
B.P.															
Pulse															
Lochia															
Fundus															
Episiotomy															
Voiding															
Nsg. Signature															

Infant:

Transfer Time
To Nursery _____

Condition _____

Signature _____

Mother:

Transfer Time
to Postpartum _____

Condition _____

Signature _____

Date	Time	

Delivery Room Data

Fully Dilated: Date _____ Time _____ hrs.

Transferred to Delivery Room ____ At _____ hrs.

Electronic Monitoring: Yes ☐ No ☐

F.H. after every cont. in 2nd Stage if not monitored

F.H. Taken Last: Rate _____ Time _____ hrs.

Summary of F.H.R. Tracing: _____

Nurse's Delivery Room Note:

_____

Signature of Nurse

Mother's Companion: None ☐ Male ☐ Female ☐ Present During Labour ☐ Present At Delivery ☐

Neonatal Backup: Yes ☐ No ☐ Indication _____ Time Called _____ hrs. Time Arrived _____ hrs.

Catheterized: Yes ☐ No ☐ Time _____ hrs. Type _____

Sutures: Yes ☐ No ☐ Type _____ Sponge Count Correct Yes ☐ No ☐

Needle Count Correct Yes ☐ No ☐

Fill In If Applicable:

Doctor _____ Time Called _____ Time Arrived _____

Resident _____ Intern _____ Student _____

Anaesthetist _____ Resident Anaesthetist _____ Scrub Nurse _____

LABOR DELIVERY RECORD

LMP ☐ E.D.C. ☐ Gestn. At Del. ☐
☐ Singleton ☐ Twins ☐ Other

Antepartum Status
Grav. ☐ Para ☐ Abort ☐ S.B. ☐ N.N.D. ☐

	ABO	Rh
BLOOD GR.		
Rh TITRE		
VDRL		
HGB		
Rubella Titer		

Press Firmly

MEDICAL HISTORY
☐ Normal
☐ Abnormal Specify:

Problems Prev. Preg. or Infant
☐ No
☐ Yes Specify:

COMPLICATIONS OF THIS PREGNANCY
☐ Bleeding ☐ Toxemia ☐ None
☐ **PROM** ☐ Prem. Labour ☐ Diabetes
☐ Other Comment: ☐ IUGR

MEDICATIONS ☐ Yes ☐ No Specify:
SMOKING ☐ Yes ☐ No Cigs/Day ☐

FIRST STAGE: Onset Date ☐ Time ☐ hrs. Duration ☐

☐ Spontaneous
☐ Induced — ☐ Arm ☐ Oxytocin ☐ Prostaglandin
☐ Stimulated — ☐ Arm ☐ Oxytocin ☐ Prostaglandin

Indication For Induction:

MEMBRANE RUPTURE Date ☐
☐ Spont. Time ☐ hrs.
☐ Questionable
☐ Arm Duration at Delivery ☐ hrs.
☐ T. ≥ 38 in Labour
☐ **MECONIUM** ☐ Yes ☐ No
Time First Noted ☐

SECOND STAGE: Onset Date Time Duration

DELIVERY: Date ☐ Time ☐
☐ Spontaneous
☐ Precipitate
☐ Operative Position at Delivery ☐

Forceps: ☐ Easy ☐ Moderate ☐ Difficult ☐ Trial only
☐ Outlet ☐ Low Mid ☐ Mid

FETAL HEART
☐ Normal
☐ Abnormal Specify:

Last Fetal pH ☐ Time ☐ hrs.
Last Maternal Blood Sugar Date ☐ Time ☐ hrs.

Rotation:
☐ Manual Position at Interference ☐
☐ Forceps Position at Delivery ☐

Breech: ☐ Spont. ☐ Assisted ☐ Forceps ☐ Extracted

Caesarean: Uterine Incision — ☐ Trans. ☐ Vertical ☐ Hysterectomy

DRUGS TIME	(Within 24 Hours) Drug/Dose/Route

Indication for Operative Procedure

Episiotomy: ☐ None ☐ Midline ☐ Mediolateral

Lacerations: ☐ None ☐ Cervical ☐ Vaginal ☐ Anal Sphincter
☐ Anal Mucosa ☐ Perineal ☐ Sutures

THIRD STAGE: Completed Date ☐ Time ☐ hrs. Duration ☐

Placenta Delivery Weight ☐ gm. Abnormalities:
☐ Spont.
☐ Assist.
☐ Manual

UMBILICAL VESSELS
☐ 3 ☐ 2

Oxytocic:
☐ None
☐ Before Separation
☐ After Separation
Type ☐ Dose ☐ Route ☐

Blood Loss
Before Del. ☐ ml.
After Del. ☐ ml.

☐ Oxytocin Drip Postpartum P.P.H. ☐ Yes ☐ No

Anaesthesia:
☐ None ☐ Epidural Lowest B.P. ☐
☐ Local ☐ General
☐ Pudendal Start Time ☐
☐ Other ☐ Wedge used (15° Tilt)

BABY: ☐ **Girl** ☐ **Boy** **Weight** ☐ gm.

☐ Liveborn
☐ Stillbirth: Date Last Fetal Movements Date Last Fetal Heart

CONDITION AT BIRTH:	1 min.	5 min.
Tone		
Colour		
Respiration		
Response		
Heart Rate		
APGAR SCORE		

Age First Breath ☐ min.
Age at First Cry ☐ min.
Age Sust. Resp. ☐ min.

EYE MED'S ☐

Asphyxia:
☐ None
☐ Moderate
☐ Severe
☐ Cord pH Done

RESUSCITATION:
☐ None
☐ Oxygen Only
☐ Pos. Pres. Bag and Mask
☐ Pos. Pres. Bag and Tube
Pos. Pres. Began Age ☐ to ☐

INFANT EXAM: ☐ Normal
☐ Abnormal Specify:

Signature _____

Nurse Attending _____ Delivered by Physician _____

MATERNAL POSTPARTUM FLOW SHEET

Date	Time	Breasts Normal (N) Engorged (E)	Fundus (b ↑ or ↓ ⊙)	Lochia Rubra (R) Serosa (S) Alba (A)	Episiotomy — Ok (✓) Incision	Voiding -normal (N)	B.M.	Homan's Sign (+) Sign (•)	Medication & Progress

RCP/05

PROGRESS REPORT SHEET (NORMAL) AND TEACHING GUIDE

Tick (✓) or use symbol where appropriate
Use (X) where abnormal and describe on Progress Notes

Date										
Breasts Normal (N) Engorged (E)										
Fundus f.b. ↑ or ↓ O										
Rubra (R) Serosa (S) Lochia — Alba (A)										
Incision — OK (✓)										
Episiotomy — OK (✓)										
Homan's Sign (—) Sign (+)										
B.M.										
Suppos. Results — good ✓ nil 0										
Enema — effective ✓ non-effective 0										
Voiding-normal (N)										
Nurse's Signature 0700 - 1900 or day										
1900 - 0700 or evening										
Students or nights										

Patient Teaching	**Date** **Signature**	**Comments**	**Patient Teaching**	**Date** **Signature**	**Comments**
Perineal Care			Pre-Op. Teaching		
Sitz Bath			Post-Op. Teaching		
Basic Breast Care			Incision Care		
Breast Feeding			Discharge Teaching		
Self Breast Exam.					
Baby Bath			Infant Nutrition		
Return Bath			Family Planning		
Formula Prep./Feeding			Breast Feeding		
Diapering/ Positioning			Exercises		
			Parenting Discussion		

MATERNAL & NEWBORN PROGRESS SHEET

Date Time	

PHYSICIAN
NEWBORN ADMISSION & DISCHARGE

Birth Date	**Birth Weight** (gm.)	**Head Circ.** (cm.)	**Body Length** (cm.)

Clinical Gestational Assessment

	<36 wk.	36-37 wk.	38-40 wk.	41 = wk.
Breast Tissue	☐ Absent	☐ 2mm	☐ 4mm	☐ 7mm
Sole Creases	☐ Single Ant. Crease	☐ Anterior 1/3	☐ Few Posterior	☐ Full
Ear Cartilage	☐ Nil	☐ Some	☐ Stiff	
Testes	☐ In Canal	☐ Descended		
Scrotum	☐ Few Rugae	☐ More		

Gestational Age (Dates) ____ wk.
Gestational Assessment (Physical Exam) ____ wk.

Hypoglycemia Screening Yes ☐ No ☐
Time ____
Dextrostix Results ____

Admission Exam [✓] Normal [X] Abnormal

- [ ] General — Tone, Activity, Colour
- [ ] Skin
- [ ] Nutritional Status — Soft Tissue Wasting ☐ Yes ☐ No
- [ ] Skull Shape
- [ ] Fontanelle and Sutures
- [ ] Eyes
- [ ] Ears
- [ ] Nose
- [ ] Mouth
- [ ] Palate
- [ ] Respiratory System
- [ ] Heart
- [ ] Femoral Pulsations
- [ ] Abdomen - Liver (.....cm.)
  Spleen (.....cm.)
- [ ] Umbilicus
- [ ] Anus
- [ ] Genitalia
- [ ] Neurological
- [ ] Skeletal, Clavicle
  Hips
  Feet

Date ____ Signature ____

Comments

Date ____ Signature ____

Discharge Exam [✓] Yes Comments if Abnormal

- [ ] Tone and Activity
- [ ] Skin — Jaundiced ☐ Yes ☐ No
- [ ] Heart
- [ ] Respiratory
- [ ] Umbilicus
- [ ] Circumcision
- [ ] Feeding ☐ Breast ☐ Bottle Formula Type
- [ ] Discharge Weight ____ gm.
- [ ] Blood Group ____
- [ ] Hgb ____

Discharge Diagnosis

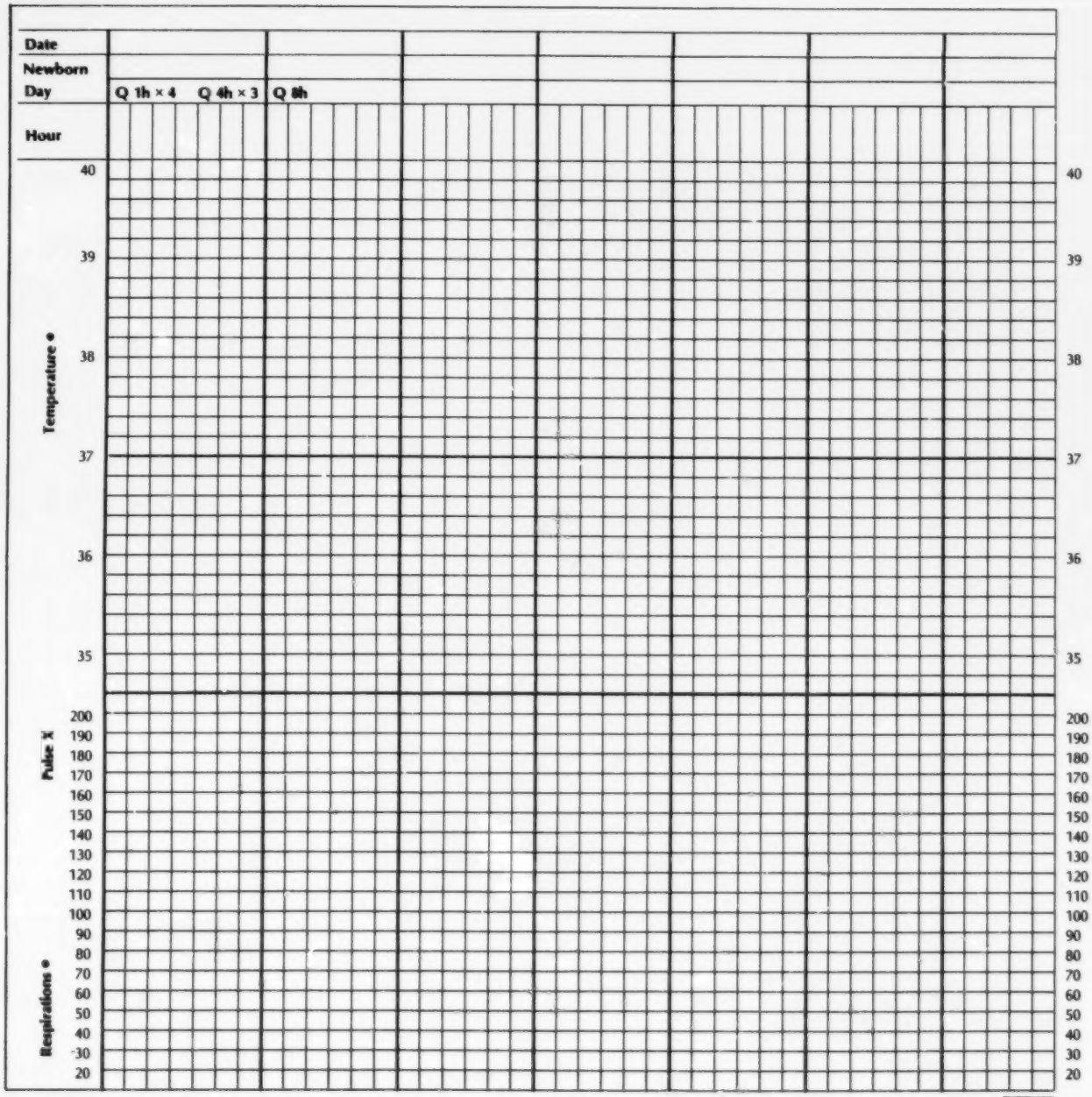
- [ ] Normal
- [ ] Other

Date ____ Signature ____

Comments

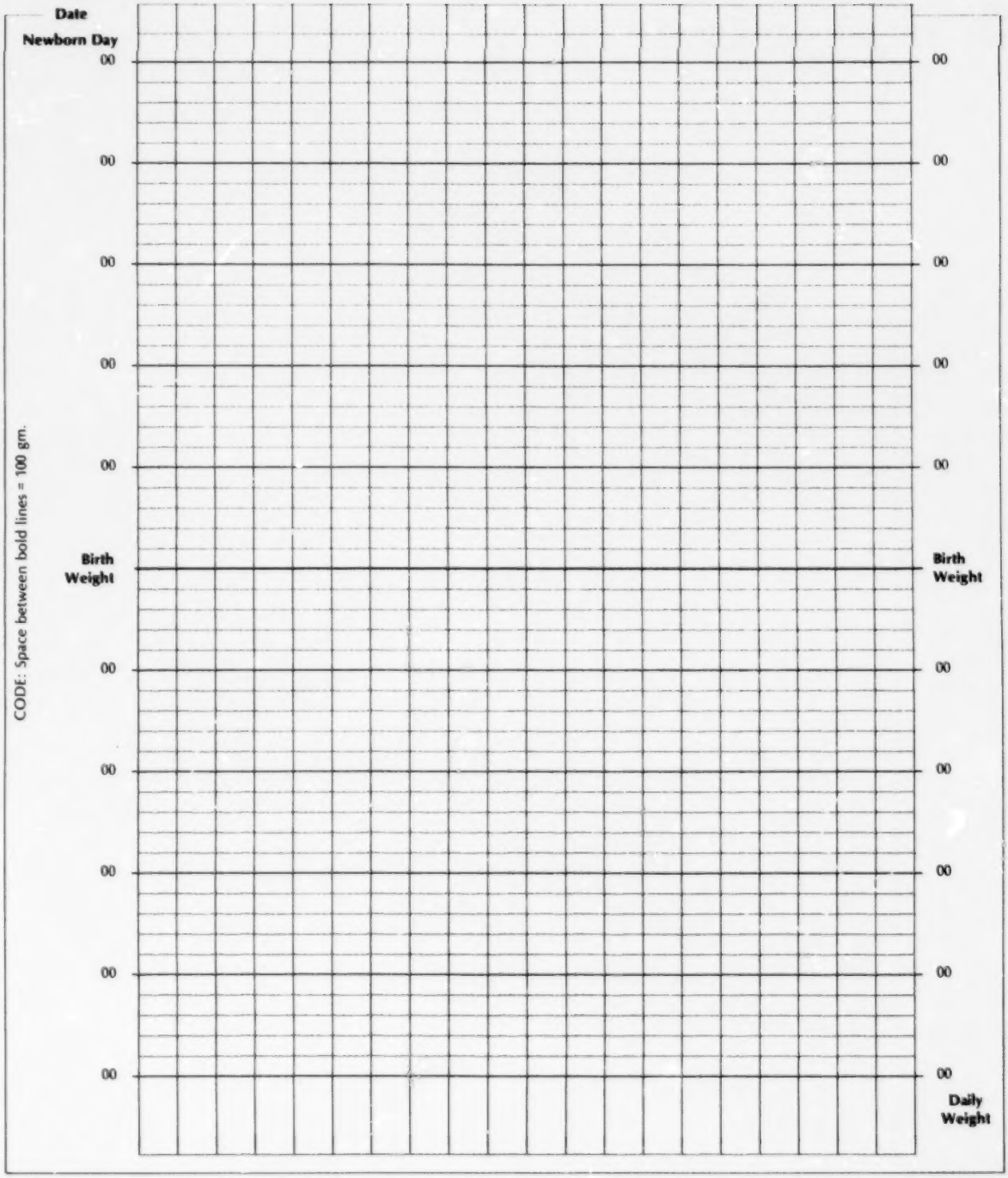
Date ____ Signature ____

NEWBORN T.P.R.



RCP/09

NEWBORN WEIGHT GRAPH

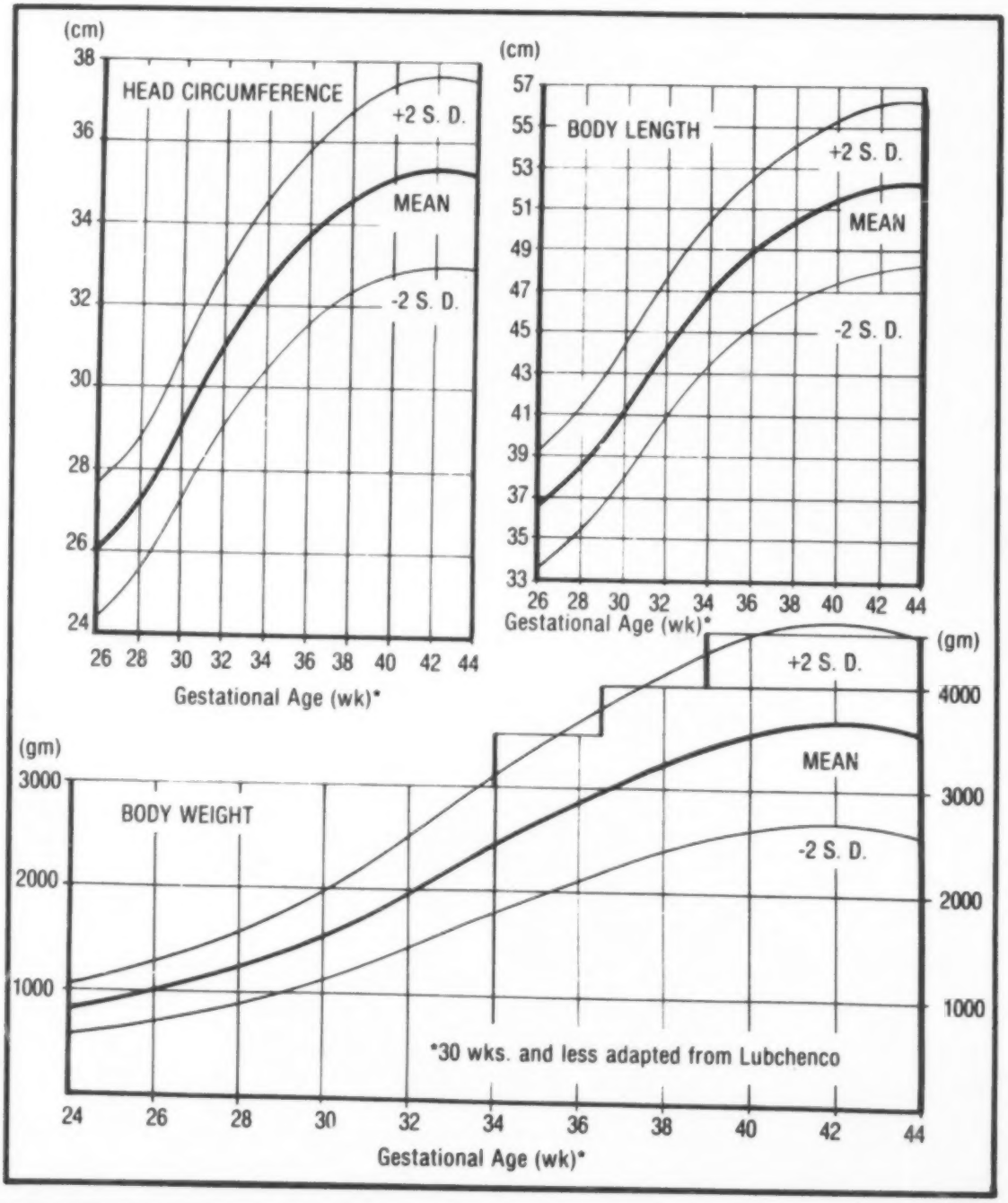


RCP/10

NEWBORN NURSING NOTES

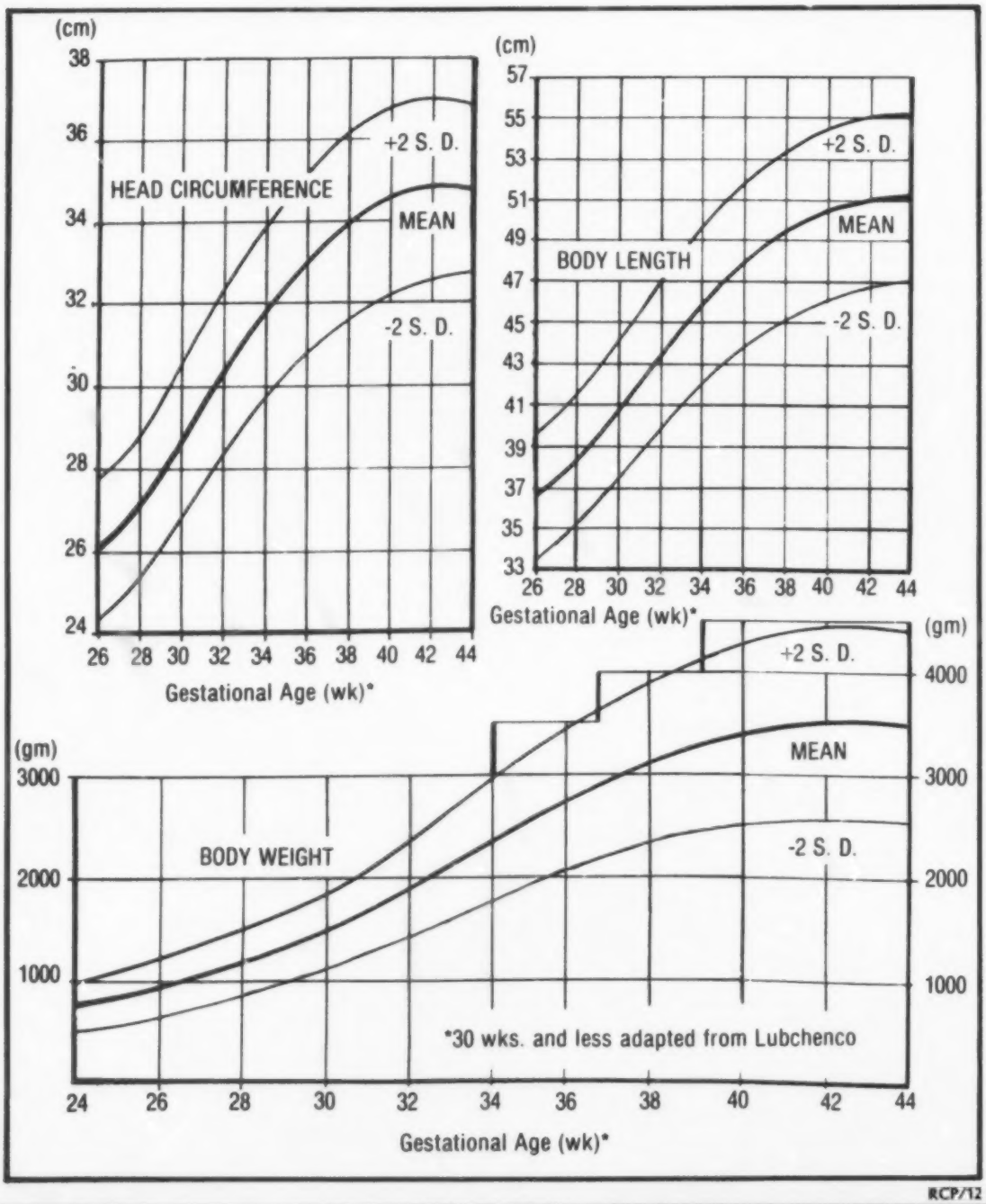
Newborn Day	Date	Time	Color	Tone	Urine	Stool	Feeding	Remarks

ATLANTIC
NEWBORN MALE GROWTH CHART



RCP/12

ATLANTIC
NEWBORN FEMALE GROWTH CHART



RCP/12

NEWFOUNDLAND AND LABRADOR
PRE-NATAL RECORD

HOSPITAL

NAME

ADDRESS

RELIGION TELEPHONE

D O B AGE OCCUPATION ETHNIC GROUP

HUSBAND'S NAME AGE OCCUPATION DOCTOR'S NAME

TOPICS FOR DISCUSSION

PRE NATAL CLASSES

VITAMIN SUPPL DIET AND WEIGHT

SMOKING

ALCOHOL

MEDICATIONS

CLOTHES

BOOKS

EXERCISE

REST

COITUS

BOWELS

BATHS

GENETIC COUNSELLING

DATE OF DATE OF QUICKENING

BREAST FEED

BREAST CARE

POSSIBILITY OF C S

HOSP ADM PROCEDURES

ANAES AND ANALG

LABOUR STAGES

BABY CARE

ACCOMMODATION

MENSTRUAL HISTORY

L M P E D C

CYCLE DURATION

NORMAL SURE ABNORMAL UNSURE

BIRTH CONTROL TYPE

NONE ☐ DATE DISCONTINUED

PREGNANCY TEST POSITIVE (DATE)

PREVIOUS PREGNANCIES INCLUDING ABORTIONS

DATE	PLACE	AGEST	HRS OF LAB	TYPE OF DEL	COMPLICATIONS	B W	SEX	CONDITION OF BABY & PRESENT HEALTH

PAST ILLNESSES

- RENAL ☐
- CARDIAC ☐
- DIABETES ☐
- INFECTIONS ☐
- RUBELLA ☐
- V D ☐
- OPERATIONS ☐
- TRANSFUSIONS ☐
- EPILEPSY ☐
- OTHER ☐

CURRENT MEDICATIONS

ALLERGIES

HISTORY OF PRESENT PREGNANCY

- VOMITING ☐
- BLEEDING (WHEN) ☐
- SMOKING ☐
- ALCOHOL ☐
- DRUG USE ☐
- NUTRITION ☐
- X RAY ☐
- OTHER ☐

FAMILY HISTORY

- DIABETES ☐
- CARDIAC ☐
- HYPERTENSION ☐
- T B ☐
- TWINS ☐
- GENETIC ☐
- MALFORMATIONS ☐
- OTHER ☐

EXAMINATION

GENERAL CONDITION WEIGHT _____ HEIGHT _____

HEAD AND NECK

CHEST

C V S

BREASTS

ABDOMEN

EXTREMITIES (VARICOSITIES)

NEUROLOGICAL

PELVIC EXAMINATION

VULVA

VAGINA

CERVIX

UTERINE SIZE

ADNEXA

WHITE COPY: MOTHER'S HOSPITAL CHART **YELLOW COPY: PHYSICIAN'S COPY** **Please print firmly.**

LABORATORY DATA

DATE	GEST.	HB.	COOMBS	ANTIBODIES

BL. GP. _____ RH _____ HUSBAND'S RH _____ RHOGAM GIVEN _____

VDRL _____

RUBELLA _____

PAP _____

M.S.U. _____

OTHER INVESTIGATIONS (INCLUDE DATE) e.g., ULTRASOUND, AMNIOCENTESIS, G.T.T., ESTRIOL ESTIMATION.

RISK FACTORS ANTICIPATED

PREGNANCY

LAB. AND DEL.

NEWBORN

CONSULTATION DATE

INITIAL RISK CATEGORY: A B C N

FINAL RISK CATEGORY A B C N

*PLEASE REFER TO RISK GRADING GUIDE.

SUMMARY

NAME | AGE | G. | P. | A | L.M.P. | E.D.C. | QUICKENING

DATE	WGT. PRE-PREG.	B.P.	URINE ALB/SUG.	EDEMA	DUR WKS	SIZE OF FUNDUS WKS. CM	PRES POSITION	F.H.	RISK A/B/C H	REMARKS	RET IN

CLINICAL ASSESSMENT OF PELVIS

HOSPITAL INFORMATION

BREAST FEEDING PRE-NATAL CLASSES PREP TYPE

ROOMING IN HUSBAND IN

SUMMARY OF DELIVERY

POST-PARTUM VISIT DATE

A GUIDE TO PREGNANCY RISK GRADING

The risk factors or problems listed below are intended as examples only and the list is not exclusive. This risk grading system is intended as a basis for planning ongoing management of the pregnancy.

GRADE C Pregnancy at high risk

Pregnancies which are so complicated that the fetus and/or mother are obviously in danger. Wherever possible, these patients should be transferred to a regional hospital for intensive care and delivery.

DIABETES CLASS C, D, F, R, OR SIGNIFICANTLY COMPLICATED

RENAL DISEASE WITH HYPERTENSION + ↓ FUNCTION

PREMATURE RUPTURE OF MEMBRANES (+ SEPSIS)*

PROLONGED RUPTURE OF MEMBRANES MORE THAN 6 HOURS, ANTEPARTUM BLEEDING, CONTINUING OR REPEATED*

HYPERTENSION WITH SUPERIMPOSED TOXAEMIA

EARLY UNCONTROLLED PREMATURE LABOUR*

SEVERE FETAL GROWTH ARREST (< 10th Percentile)

HEART DISEASE, ESPECIALLY WITH FAILURE SEVERE PREECLAMPSIA.

*particularly 24 - 34 wks. gestational age.

GRADE B Pregnancy at risk

The fetus and/or mother are definitely at risk and consultation should be obtained with a specialist obstetrician in your area. A plan of management will be suggested by him which may include collaborative care for the rest of the pregnancy with delivery usually in the regional hospital.

DIABETES, CLASS A (GESTATIONAL) OR CLASS B

HYPERTENSION WITHOUT TOXAEMIA

APH, CEASED AND IN HOSPITAL

CERVICAL INCOMPETENCE

HYDRAMNIOS

POST-DATE PREGNANCY (42 weeks +)

HISTORY OF PRIOR STILL BIRTH OR NEONATAL DEATH

MATERNAL OBESITY

SIGNIFICANT TOBACCO, ALCOHOL, DRUG INTAKE

RHESUS IMMUNIZATION

RENAL DISEASE WITHOUT HYPERTENSION

MILD TOXAEMIA

CONTROLLED PREMATURE LABOUR

MULTIPLE PREGNANCY

BREECH PRESENTATION OR MALPRESENTATION

PRIMIGRAVIDA (age 15 and below, 35 and above)

HISTORY OF GENETIC OR METABOLIC DISEASE IN FAMILY (Genetic Amniocentesis or Counselling required)

ANAEMIA NOT RESPONDING TO IRON (< 10 gm)

WEIGHT GAIN > 10 LBS BY 30 WEEKS

PREVIOUS GROWTH RETARDATION, PREMATURE LABOUR, OR CAESAREAN SECTION

GRADE A Pregnancy at no predictable risk

NO PRIOR PERINATAL MORTALITY OR LOW BIRTHWEIGHT INFANT

NO SIGNIFICANT MEDICAL DISEASE

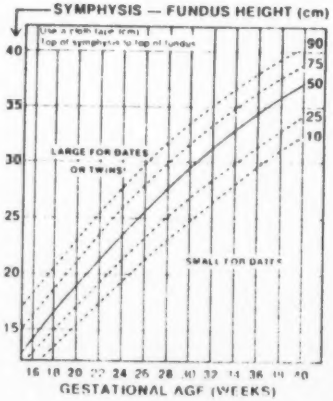
NO PREGNANCY COMPLICATIONS NOW OR IN THE PAST (Bleeding, Hypertension, Premature Labour)

FETAL GROWTH SEEMS ADEQUATE

GRADE N Newborn at risk

Delivery in a high risk center should be considered if there is reason to suspect probable neonatal problems based on past or family history.

PREVIOUS SEVERE RDS, SEIZURE DISORDERS, HIRSCHSPRUNG'S DISEASE, CYSTIC FIBROSIS, CONGENITAL ANOMALIES



INSTRUCTIONS:

1. Each antenatal visit, measure the symphysis-fundus height (measured with a tape and refer to graph on the left).
2. At each antenatal visit insert your current assessment of pregnancy risk grading (A, B, C or N) in the appropriate column.
3. Two or more minor risk problems can combine to produce a major pregnancy risk.
4. Use this grading as the basis for continuing management of the pregnancy, e.g.
   C Consider transfer
   B Consider consultation